

# DENON

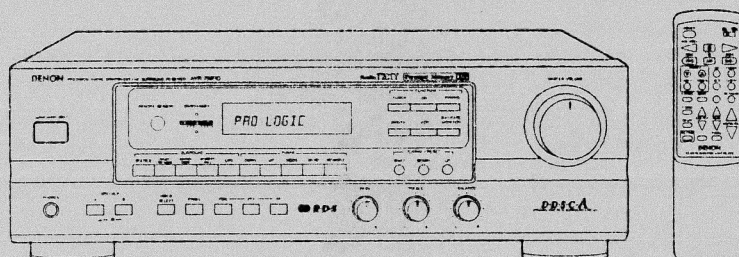
Hi-Fi AV Surround Receiver

**For Europe Model**

## SERVICE MANUAL

# MODEL AVR-700RD

### AV SURROUND RECEIVER



This service manual is supplement for Europe model. For servicing, refer to the service manual of AVR-750/760/770/780 (Asia model) already issued at the same time.

#### ADDENDUM PARTS LIST OF EXPLODED VIEW

Ref. No.	Part No.	Part Name	Remarks	Q'ty
	1	9LJ P023 12	Main P.W.B. Ass'y	1
	2	9LJ P023 02	FL P.W.B. Ass'y	1
Δ	7	9LE V004 44	AC Cord	1
	9	9LP H051 81	Inner panel	1
	16	9LP H051 52	Front panel	1
Δ	17	9LB T010 22	Power trans	1
	21	9LQ A009 92	Rear plate	1
Δ	26	9L2 7277 22	Fuse 2.5A	1
Δ	27	9L2 7277 22	Fuse 2.5A	1
Δ	36	9LB T005 32	Mini trans	1
★	9LP C018 12	RDS Button	Unused	1
★	9LQ T008 13	Preset label		
★	9LS X020 23	E2 EAN Label		1
205	511 3291 C02	Instruction manual		1
207	9LS G070 032	Carton box		1

• Some illustrations using in this service manual are slightly different from the actual set.

## NIPPON COLUMBIA CO., LTD.



# DENON

## ADDENDUM PARTS LIST OF P.W.B. BOARD

### MAIN P.W.B. ASS'Y

### FL P.W.B. ASS'Y

Ref. No.	Part No.	Part Name	Remarks	Q'ty	Ref. No.	Part No.	Part Name	Remarks	Q'ty
IC911	262 1701 906	IC SAA6579			TR001	9LC F011 21R	Transistor 2SK161Y		
IC912	9LC K044 71	IC LC7074M			R002	241 2400 034		RDL-562J1-16LQ	
D911	276 0401 905	Diode 1SS133			R004	241 2400 995		RDL-103J1-16LQ	
R425	241 2407 082		RD14S1J2R2J		R005	241 2397 066		RDL-391J1-16LQ	
C361~364	255 1138 005		CQ92M1H333KB		R006	241 2397 943		RDL-331J1-16LQ	
C409	253 4275 008		CC45SL2H180KB		R023	241 2398 971		RDL-122J1-16LQ	
C428	255 4224 903		CQ92M1H473KB		R032	241 2403 073		RDL-154J1-16LQ	
C453,454			CC73MSL1H101J		R033,034	241 2403 992		RDL-184J1-16LQ	
C513,514	255 4212 012		CQ92M1H472KEB		R035	241 2403 073		RDL-154J1-16LQ	
C523	9L0 8901 01R		CCT103M16D3		R041,042	241 2400 911		RDL-472J1-16LQ	
C609	9L0 8901 01R		CCT103M16D3		R050	241 2396 025	RDL-101J1-16LQ	Unused	
C911,912			CC73MCH1H270J		R161,162	241 2400 911		RDL-472J1-16LQ	
C913	254 4256 004		CE04W1E100MB (SSL)		R705	241 2398 052		RDL-102J1-16LQ	
C914	254 4260 058		CE04W1H2R2MB		R706	241 2399 064		RDL-302J1-16LQ	
C915			CC73MSL1H561J		R733	241 2400 911		RDL-472J1-16LQ	
C918	254 4256 004		CE04W1E100MB (SSL)		R738	241 2399 022	RDL-202J1-16LQ	Unused	
C919			CK73MB1H103K		C006			CCT103M16D3	
CN9A	9L2 9590 59	10P PH Pinpost	Unused	1	C023		CCT101J50D3	Unused	
CN14A	9L2 9590 64	14P PH Pinpost		1	C026	254 4260 993		CE4W1H220MB (SSL)	
XT911	9L2 1701 33F	Crystal 4.332MHz		1	C030	9L0 8900 84R		CCT561K50D3	
XT912	399 9018 003	Crystal (CST4.0MGM CER)		1	C053,054	9L0 8900 81R		CCT331K50D3	
					C055	253 4538 965		CCT121J50D3	
					C061,062	9L0 8900 96R		CCT472M25D3	
					C121~128			CC73MSL1H560J	
					C140,141			CK73MF1H102Z	
					C147,148			CC73MSL1H101J	
					C148			CC73MSL1H101J	
					CF001,002	261 0064 007	Ceramic filter SFT10.7MS2-A		1
					CN9B	9L2 9092 92	10P PH B-C Connector L=270	Unused	
					CN14B	9L2 9094 12	14P PH B-C Connector L=270		1
					LF001	9L2 1363 13	ANTI-BIRDIE Filter (114kHz)		1
					LF002,003	9L2 1363 14	Lowpass filter (19kHz)		1
					LF101,102	9LB J002 11	Lowpass filter		1
					SW705-707	9L2 6396 82R	Tact switch		1
					△ T501	9LB T005 32	Sub power trans		1
					TU001	9L2 4286 51	Tuner pack (FE415-G11)		1

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• SAFETY PRECAUTIONS



**CAUTION**  
RISK OF ELECTRIC SHOCK  
DO NOT OPEN




**CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.


The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.**

• 安全注意事項



**CAUTION**  
RISK OF ELECTRIC SHOCK  
DO NOT OPEN



**注意：為減少觸電危險，切勿拆下機殼（或機背）。機身內並無用戶修理用零件。請交由專業修理人員修理本機。**

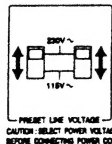
三角形內有箭頭的閃電符號旨在提醒用戶，本產品機殼內有未經絕緣的「危險電壓」，其幅度足以使人觸電而發生危險。

三角形內加感嘆號旨在提醒用戶，有重要的操作與維修說明書配合本機。

**警告：為減少著火或觸電危險，切勿讓本機受雨淋濕或受潮。**

Make the following settings before connecting the components.  
連接各設備之前請先進行下列設定。

- Setting the line voltage (AVR-750/770)
- 設定電源電壓 (AVR-750/770)





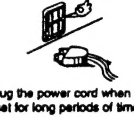
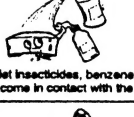
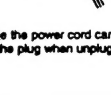




- The customer can set the VOLTAGE SELECTORS on the back panel for appropriate line voltage by using a screwdriver.
- Do not use excessive force in setting the VOLTAGE SELECTOR KNOB — you may damage it.
- If the VOLTAGE SELECTOR KNOB does not move smoothly, contact your store of purchase.
- 用戶可利用螺絲起子將機背的VOLTAGE SELECTORS (電壓選擇器) 設定到適當的電源電壓。
- 旋轉電壓選擇器時請勿太用力，以免損壞。
- 如果電壓選擇器旋轉時不順，請向所購入本機之商店查詢。










**CAUTION:**

- Be sure to set both voltage selectors to same position.
- 各電壓選擇器均須設定到同樣的位置。

NOTE ON USE

 <p>• Avoid high temperatures. Allow for sufficient heat dispersion when installed on a rack.</p>	 <p>• Keep the set free from moisture, water, and dust.</p>	 <p>• Do not let foreign objects in the set.</p>
 <p>• Handle the power cord carefully. Hold the plug when unplugging the cord.</p>	 <p>• Unplug the power cord when not using the set for long periods of time.</p>	 <p>• Do not let insecticides, benzene, and thinner come in contact with the set.</p>
 <p>• Handle the power cord carefully. Hold the plug when unplugging the cord.</p>	 <p>• (For sets with ventilation holes) • Do not obstruct the ventilation holes.</p>	 <p>• Never disassemble or modify the set in any way.</p>

使用注意事項

 <p><b>防止高溫</b></p> <ul style="list-style-type: none"> <li>• 勿將本機放置於受烈日曝曬或靠近發熱器材的位置。</li> </ul>	 <p><b>注意溫氣、水和塵</b></p> <ul style="list-style-type: none"> <li>• 勿將本機放置於溫度濕氣或多塵的位置。花瓶或其他有水的物件均不宜置在本機上方。</li> </ul>	 <p><b>勿讓雜物掉入機內</b></p> <ul style="list-style-type: none"> <li>• 特別要留意勿讓針、髮夾、硬幣等進入本機。</li> </ul>
 <p><b>機殼/機背安裝注意</b></p> <ul style="list-style-type: none"> <li>• 避免將本機裝於密封的機殼內。</li> <li>• 裝於機殼或機箱時，要配足夠大的通風孔，以加強散熱。</li> </ul>	 <p><b>當你外出時</b></p> <ul style="list-style-type: none"> <li>• 長時間不用本機時，例如外出旅行時，須將插頭拔離電源插座。</li> </ul>	 <p><b>保護機殼</b></p> <ul style="list-style-type: none"> <li>• 避免在本機附近噴灑殺蟲劑，也勿用汽油、天拿水或其他溶劑抹機殼，因這類液體易引起產品材質或顏色改變。抹拭要用軟布，在用化學處理過的布指抹時請小心輕巧說明書規定。</li> </ul>
 <p><b>留意電源線</b></p> <ul style="list-style-type: none"> <li>• 從插座拔出插頭時切勿拉電源線，應抓著插頭將其拔出。</li> </ul>	 <p><b>備有通風孔的機殼</b></p> <p><b>勿堵塞機殼的通風孔</b></p> <ul style="list-style-type: none"> <li>• 堵塞通風孔會損壞本機。</li> <li>• 各通風孔對本機內部散熱異常重要，必須特別留意。若通風孔有物件阻擋，就會使機內溫度上升很高。</li> </ul>	 <p><b>勿打開機殼</b></p> <ul style="list-style-type: none"> <li>• 打開機殼頂蓋或底蓋，及伸手入機殼內部都是危險的，切勿打開機殼。如果本機內有不良零件，宜立刻拔下電源插頭，再向購入本機之商店或鄰近修理商聯絡。</li> </ul>



■ We greatly appreciate your purchase of the AVR-750/760/770/780.  
 ■ To be sure you take maximum advantage of all the features the AVR-750/760/770/780 has to offer, read these instructions carefully and use the set properly. Be sure to keep this manual for future reference should any questions or problems arise.

"SERIAL NO. \_\_\_\_\_  
 PLEASE RECORD UNIT SERIAL NUMBER ATTACHED TO THE REAR OF THE  
 CABINET FOR FUTURE REFERENCE"

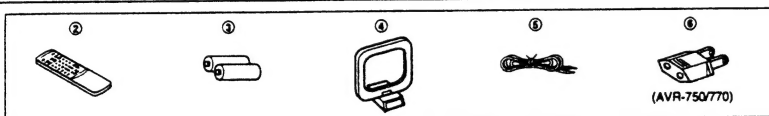
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## ACCESSORIES

Check that the following parts are included in addition to the main unit:

① Operating instructions .....	1	④ AM loop antenna .....	1
② Remote control unit (RC-840) .....	1	⑤ FM indoor antenna .....	1
③ R6P/AA batteries .....	2	⑥ Plug adaptor .....	1



## 1 INTRODUCTION

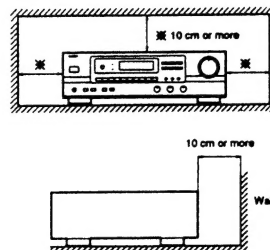
### INSTALLATION PRECAUTIONS

Using this receiver or other electronic equipment containing microprocessors simultaneously with a tuner or TV may result in noise in the sound or picture.

If this should happen, take the following steps:

- Install this unit as far as possible from the tuner or TV set.
- Keep the antenna lines of the tuner or TV as far as possible from the receiver's power cord and connection cables.
- This problem is especially frequent when using indoor antennas. We recommend using outdoor antennas and 75  $\Omega$  ohms coaxial cables.

For heat dispersal, leave at least 10 cm of space between the top, back and sides of this unit and the wall or other components.



**CAUTION:**  
 Whenever the POWER operation switch is in the OFF position, the unit is still connected on AC line voltage.  
 Please be sure to unplug the cord when you leave home for, say, a vacation.

## 2 CONNECTIONS

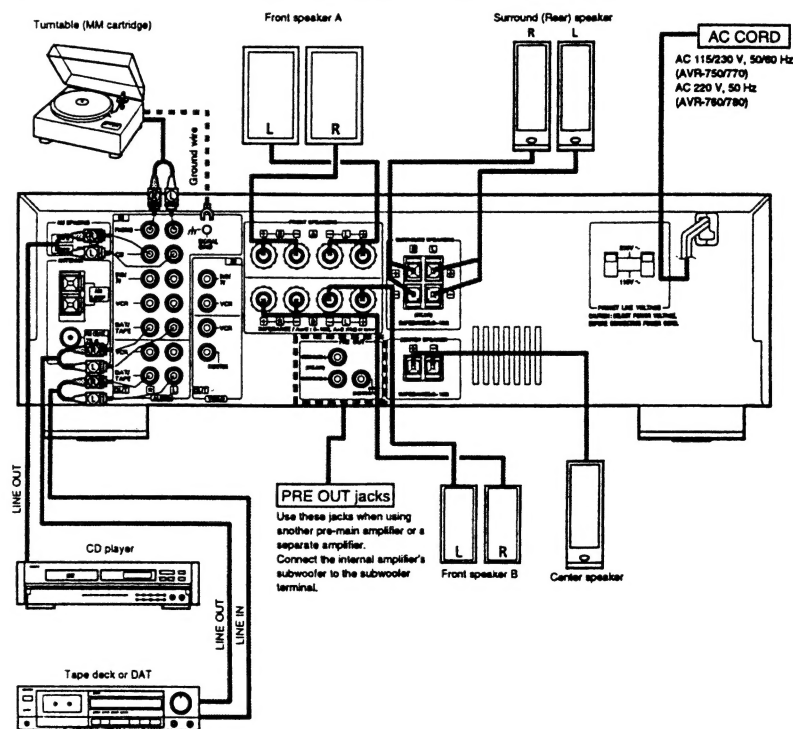
- Do not plug in the power cord until all connections have been completed.
- Be sure to connect the left and right channels properly (left with left, right with right).
- Insert the plugs securely. Incomplete connections will result in the generation of noise.

- Note that binding pin plug cords together with power cords or placing them near a power transformer will result in the introduction of hum or other noise.
- Noise or humming may be generated if a connected component is used independently without turning the power of the AVR-750/760/770/780 on. If this happens, turn on the power of the AVR-750/760/770/780.

### 2-1 Connecting the audio components

**NOTE:**  
 This unit cannot be used with MC cartridges directly. Use a separate head amplifier or step-up transformer.

- Precautions when connecting speakers  
 If a speaker is placed near a TV or video monitor, the colors on the screen may be disturbed by the speaker's magnetism. If this should happen, move the speaker away to a position where it does not have this effect.









## ■ System code buttons

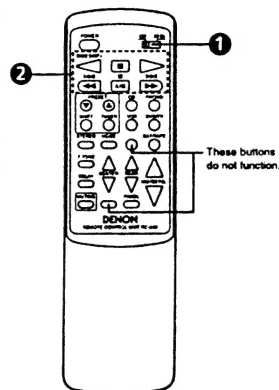
DENON remote-controllable audio components can be controlled using this unit's remote control unit. Note that some components, however, cannot be operated with this remote control unit.

**1** Set the slide switch to the position for the component to be operated (CD or DECK).

**2** Use the buttons shown below to operate the component. For details, refer to the respective component's manual.

**a. For CD players**

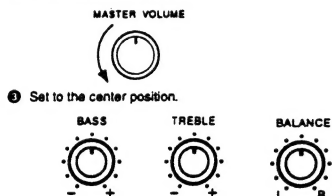
**b. For tape decks (DECK)**



## 4 OPERATIONS

### 4-1 Preparations for playback

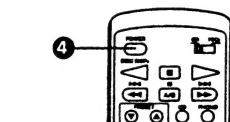
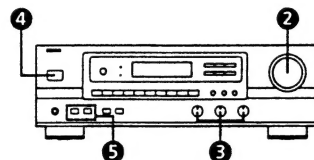
- Check that all connections are proper.
- Set to the minimum position.



- Turn on the power.  
Press the POWER operation switch (button).



- ON / STANDBY**  
The power turns on and "STANDBY" indicator is lit. Several seconds are required from the time the POWER operation switch is set to the "ON / STANDBY" position until sound is output. This is due to the built-in muting circuit that prevents noise when the POWER operation switch is turned on and off. Set the POWER operation switch to this position to turn the power on and off from the included remote control unit (RC-840).
- OFF**  
The power turns off and "STANDBY" indicator is off. In this position, the power cannot be turned on and off from the remote control unit.



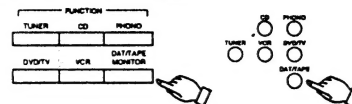
- Select the front speakers.  
Press the speaker A or B switch to turn the speaker on.



**NOTE:**  
In the standby mode  
If you lose the remote control unit, the power can be turned on by initializing the microprocessor.  
For the operating procedure, see: [8] INITIALIZATION OF THE MICROPROCESSOR on page 13  
Note that this operation will clear the last function memory.

### 4-2 Playing the program source (Stereo playback)

- Select the source to be played.



- Select the STEREO mode.

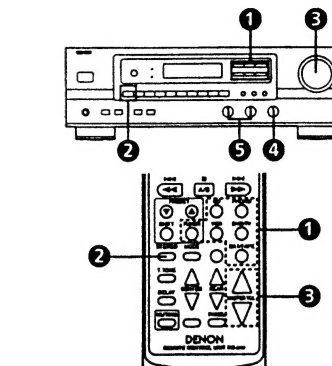


- Adjust the MASTER VOLUME control.



- Adjust the front left/right BALANCE.

Turn the control counterclockwise to reduce the volume of the right channel, clockwise to reduce the volume of the left channel.



- Adjust the BASS and TREBLE.

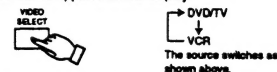


Turn the control clockwise to increase the bass, counterclockwise to decrease it.  
Turn the control clockwise to increase the treble, counterclockwise to decrease it.

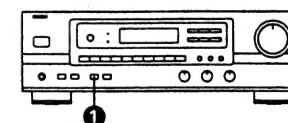
### 4-3 Simulcast playback

Use this switch to monitor a video source other than the audio source.

- Press and hold the VIDEO SELECT button until the desired source appears on the display.



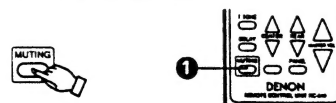
- Cancelling simulcast playback
- Press the VIDEO SELECT button once more.
- Select the VIDEO function.



### 4-4 Using the muting function

Use this to turn off the audio output temporarily.

- Press the MUTING button.
- Cancelling MUTING mode.  
Press the MUTING button again.



This function can only be set from the remote control unit. The STANDBY LED flashes when the muting function is set.

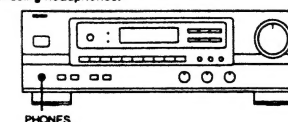
### 4-5 Listen with headphones

Connect the headphones to the PHONES Jack.

When listening with headphones privately, set A, B SPEAKER switches and the superwoofer's power switch to the OFF position and set the stereo surround mode.

**NOTE:**

To prevent hearing loss, do not raise the volume level excessively when using headphones.





#### 4-6 Recording the program source (recording the source currently being monitored)

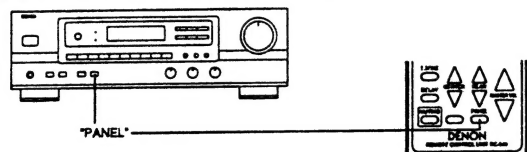
- Follow steps ① to ③ under "Playing the program source". (refer to page 9)
- Start recording on the tape or video deck. For instructions, refer to the component's operating instructions.

##### Simultaneous recording

The signals of the source selected with the function selector button are output simultaneously to the DAT/TAPE and VCR REC OUT jacks. If a total of two tape and/or video decks are connected and set to the recording mode, the same source can be recorded simultaneously on both decks. In addition, if the TAPE MONITOR (DAT/TAPE) button is pressed, the audio signals from the tape deck are output to the VCR AUDIO REC OUT jacks.

#### 4-7 Front panel display

Descriptions of the unit's operations are also displayed on the front panel display. In addition, the display can be switched to check the unit's operating status while playing a source by pressing the PANEL button.



#### 4-8 Using the surround function

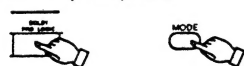
Types of surround modes and their characteristics

1	DOLBY PRO LOGIC	Use this when playing program sources recorded in Dolby Surround or Dolby Stereo.
2	CONCERT HALL	Use this setting to create the atmosphere of a concert hall. There will be no output from the center speaker.
3	LIVE	Use this setting to create the atmosphere of watching a live performance. There will be no output from the center speaker.

##### Before using the surround function

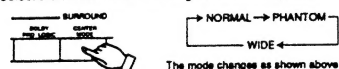
Make the following adjustments before using the surround function.

- Set the Dolby Pro Logic mode.



- Select the center mode (refer to page 11).

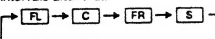
Select the center mode according to the center speaker.



- Emit the test tone.



Test tones are produced from the speakers in the order shown below, at 4 second intervals for the first two cycles, 2 second intervals after that.



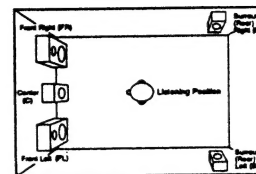
- Adjust the center and surround (rear) levels to set the volume of the speakers to the same level.



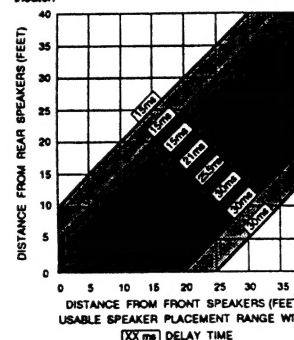
- Turn the test tone off.



- Adjust the delay time and seating position as necessary (refer to page 11).



Dolby Surround systems with Pro Logic decoding most closely replicate the Dolby Stereo theatrical experience. Only two surround speakers are necessary in the home listening environment to provide the same enveloping soundfield as multiple surround speakers in the theater.

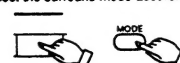


##### Personal Memory Plus function .... for EASY TO USE

The AVR-750/760/770/780 automatically stores the surround mode adding effects for all input sources. The corresponding surround mode is recalled automatically each time an input source is selected.

##### Using the surround function

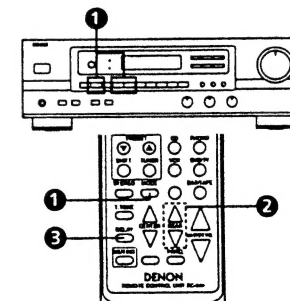
- Select the surround mode according to the input source.



- If necessary, adjust the levels.



- Adjust the parameters to the desired settings.



Manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation. Copyright 1992 Dolby Laboratories, Inc. All rights reserved.

## Operating Possible in the Various Surround Modes

The following is a list of the buttons and functions which can be operated during the different surround modes. Figures in parentheses indicate adjustment ranges.

		OUTPUT	CENTER LEVEL	SURROUND (REAR) LEVEL	CENTER MODE	TEST TONE	DELAY TIME
DOLBY PRO LOGIC	NORMAL	○	○ (0 -- 24dB)	○ (0 -- 24dB)	○	○	○ (15 - 30ms)
	PHANTOM	○	X	○ (0 -- 24dB)	○	○	○ (15 - 30ms)
	WIDE	○	○ (0 -- 24dB)	○ (0 -- 24dB)	○	○	○ (15 - 30ms)
CONCERT HALL		○	X	○ (0 -- 24dB)	Δ**	X	○ (0 - 33ms)
LIVE		○	X	○ (0 -- 24dB)	Δ**	X	○ (0 - 33ms)

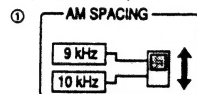
\*1 Switches to the Dolby Pro Logic from any modes other than Dolby Pro Logic.  
The level of the center and surround (rear) channels can be adjusted by 2 dB step.  
The delay time can be set by 1.5 ms step.

○: Operation possible X: Operation not possible

- The sound may be distorted for some sources if the surround (rear) level is raised during surround playback. If this happens, lower the surround (rear) level.

## 5 LISTENING TO THE RADIO

### 5-1 Setting the frequency step (AVR-750/770)



To know the tuning frequency steps, see the Table of Tuning Frequency Steps.

TABLE OF TUNING FREQUENCY STEPS		
BAND	FM	AM
STEP AM SPACING: 9 kHz	0.05 MHz	9 kHz
STEP AM SPACING: 10 kHz	0.2 MHz	10 kHz

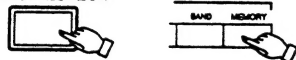
The tuning frequency steps are switchable between 9 kHz and 10 kHz for AM, between 0.05 MHz and 0.2 MHz for FM. To switch the tuning frequency steps, disconnect the power plug and set the AM SPACING switch (①) on the rear panel to the desired position. Then plug in the AC mains again.

### 5-2 Auto preset memory

This unit is equipped with a function for automatically searching for FM broadcast stations and storing them in the preset memory.

- Turn on the unit while holding in the MEMORY button. The unit automatically begins searching for FM broadcast stations.

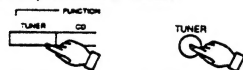
ON / STANDBY Δ OFF



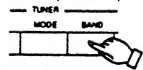
- When the first FM broadcast station is found, that station is stored in the preset memory at channel A1. Subsequent stations are automatically stored in order at preset channels A2 to A8, B1 to B8, C1 to C8, D1 to D8 and E1 to E8, for a maximum of 40 stations.

### 5-3 Auto tuning

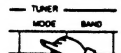
- Set the input function to "TUNER".



- Watching the display, press the BAND button to select the desired band (AM or FM).

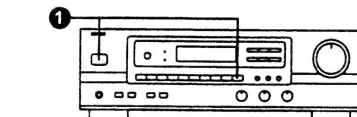


- Press the MODE button to set the auto tuning mode.



"AUTO" appears on the display.

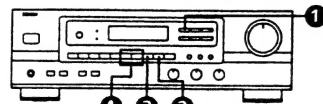
12



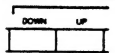
- Channel A1 is tuned in after the auto preset memory operation is completed.

#### NOTES:

- If an FM station cannot be preset automatically due to poor reception, use the "Manual tuning" operation to tune in the station, then preset it using the manual "Preset memory" operation.
- To interrupt this function, press the POWER operation button.



- Press the TUNING UP or DOWN button.



Automatic searching begins, then stops when a station is tuned in. If tuning does not stop at the desired station, use the "Manual tuning" operation.

## 5-4 Manual tuning

- Set the input function to "TUNER".
- Watching the display, press the BAND button to select the desired band (AM or FM).
- Press the MODE button to set the manual-tuning mode. Check that the display's "AUTO" indicator turns off.

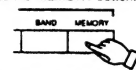
#### NOTES:

- When in the auto tuning mode on the FM band, the "STEREO" indicator lights on the display when a stereo broadcasts tuned in. At open frequencies, the noise is muted and the "TUNED" and "STEREO" indicators turn off.
- When the manual tuning mode is set, FM stereo broadcasts are received in monaural and the "STEREO" indicator turns off.

## 5-5 Preset memory

- Use the "Auto tuning" or "Manual tuning" operation to tune in the station to be preset in the memory.

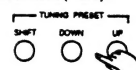
- Press the MEMORY button.



- Press the SHIFT button and select the desired memory block (A to E).

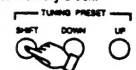


- Press the PRESET UP or DOWN button to select the desired preset channel (1 to 8).

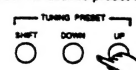


## 5-6 Recalling preset stations

- Watching the display, press the SHIFT button to select the preset memory block.



- Watching the display, press the PRESET UP or DOWN button to select the desired preset channel.



## 6 INITIALIZATION OF THE MICROPROCESSOR

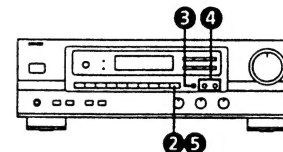
When the indication of the display is not normal or when the operation of the unit does not show the reasonable result, the initialization of the microprocessor is required by the following procedure.

- Switch off the unit using the main unit's POWER operation switch.
- Hold the following TUNER button and VIDEO SELECT button, and turn the main unit's POWER operation switch on.
- Check that the entire display is flashing with an interval of about 1 second, and release your fingers from the 2 buttons.
- Switch on the unit and the microprocessor will be initialized.

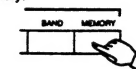
#### NOTE:

- When the microprocessor is reset, all the settings you have made are reset to the values set upon shipment from the factory.

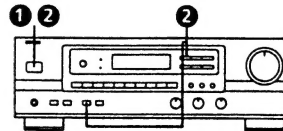
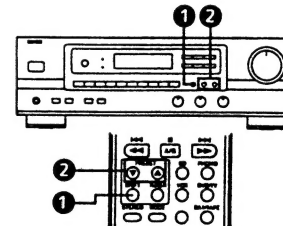
- Press the TUNING UP or DOWN button to tune in the desired station. The frequency changes continuously when the button is held in.



- Press the MEMORY button again to store the station in the preset memory.



To preset other channels, repeat steps ② to ⑤. A total of 40 broadcast stations can be preset - 8 stations (channels 1 to 8) in each of blocks A to E.





## 7 LAST FUNCTION MEMORY

- This unit is equipped with a last function memory which stores the input and output setting conditions as they were immediately before the power is switched off. This function eliminates the need to perform complicated resettings when the power is switched on.
- This unit is also equipped with a back-up memory. This function provides approximately one week of memory storage with the power cord disconnected.

## 8 TROUBLESHOOTING

If a problem should arise, first check the following:

- Are the connections correct?
  - Have you followed all operational instructions correctly?
  - Are the speakers, turntable, and other components operating properly?
- If the receiver is not operating properly, check the items listed in the table below. Should the problem persist, there may be a malfunction. Disconnect the power immediately and contact your store of purchase.

	Symptom	Cause	Measures	Page
Common problems arising when listening to the CD, records, tapes, and FM broadcasts, etc.	DISPLAY not lit and sound not produced when power operation switch set to on.	• Power cord not plugged in securely.	• Check the insertion of the power cord plug.	5
	DISPLAY lit but sound not produced.	• Speaker cords not securely connected. • Speaker switch is off. • Improper position of the audio function button. • Volume control set to minimum. • MUTING is on.	• Connect securely. • Turn on speaker switch. • Set to a suitable position. • Turn volume up to suitable level. • Switch off MUTING.	5, 6 8 9 9 9
	-PROTECT- display appears.	• Speaker terminals are short-circuited. • Block the ventilation holes of the set.	• Switch power off, connect speakers properly, then switch power back on. • Turn off the set's power, then ventilate it well to cool it down. Once the set is cooled down, turn the power back on.	5, 6 3, 4
		• The unit is operating at continuous high power conditions and/or inadequate ventilation.	• Turn off the set's power, then ventilate it well to cool it down. Once the set is cooled down, turn the power back on.	3, 4
	Sound produced only from one channel.	• Incomplete connection of speaker cords. • Incomplete connection of input/output cords. • Left/right balance is off.	• Connect securely. • Connect securely. • Adjust balance knob properly.	5, 6 5, 6 8
	Positions of instruments reversed during stereo playback.	• Reverse connections of left and right speakers or left and right input/output cords.	• Check left and right connections.	5, 6
	Sound seems distorted.	• Surround (rear) level is too high.	• Set the Surround (rear) level to lower level.	10, 11
When playing records	Humming noise produced when record is playing.	• Ground wire of turntable not connected properly. • Incomplete PHONO jack connection. • TV or radio transmission antenna nearby.	• Connect securely. • Connect securely. • Contact your store of purchase.	5 5 -
	Howling noise produced when volume is high.	• Turntable and speaker systems too close together. • Floor is unstable and vibrates easily.	• Separate as much as possible. • Use cushions to absorb speaker vibrations transmitted by floor. If turntable is not equipped with insulators, use audio insulators (commonly available).	- -
	Sound is distorted.	• Stylus pressure too weak. • Dust or dirt on stylus. • Cartridge defective.	• Apply proper stylus pressure. • Check stylus. • Replace cartridge.	- - -
	Volume is weak.	• MC cartridge being used.	• Replace with MM cartridge or use a head amplifier or step-up transformer.	5
	Receiver does not operate properly when remote control unit is used.	• Batteries dead. • Remote control unit too far from receiver. • Obstacle between receiver and remote control unit. • Different button is being pressed. • ⊕ and ⊖ ends of battery inserted in reverse.	• Replace with new batteries. • Move closer. • Remove obstacle. • Press the proper button. • Insert batteries properly.	7 7 7 7, 8 7

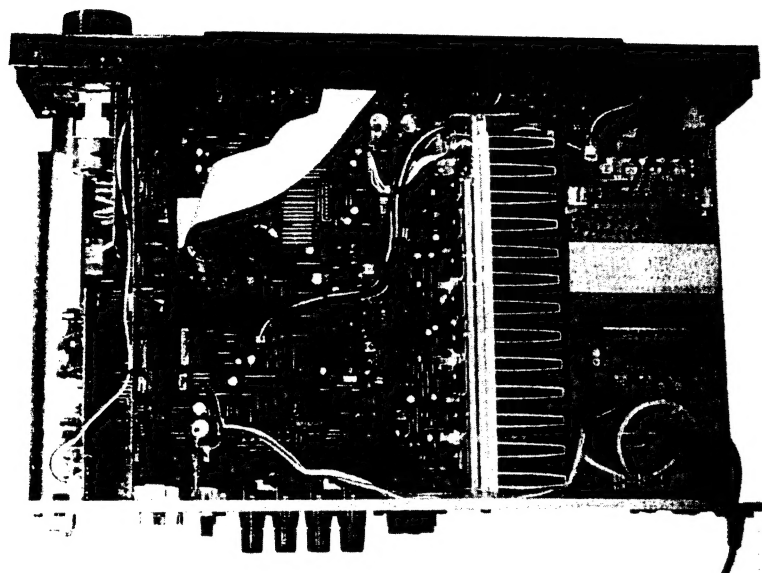
## 9 SPECIFICATIONS

• Audio Section (Power amplifier) Rated output:	FRONT 55 W + 55 W (8 Ω/ohms, 20 Hz - 20 kHz with 0.08 % THD) 80 W + 80 W (6 Ω/ohms, EIAJ)	
	CENTER 55 W (8 Ω/ohms, 20 Hz - 20 kHz with 0.08 % THD) 80 W (6 Ω/ohms, EIAJ)	
(All properties shown are only for the power amplifier stage.)	SURROUND (REAR) 25 W + 25 W (8 Ω/ohms, 1 kHz with 0.9 % THD) 35 W + 35 W (6 Ω/ohms, EIAJ)	
Output terminals:	Front: 8 to 16 Ω/ohms Center: 8 to 16 Ω/ohms Surround (Rear): 8 to 16 Ω/ohms	
(Pre-amplifier) Line input (Each line input - FRONT SP OUT) Input sensitivity/impedance: Frequency response: Tone control range:	200 mV/47 kΩ/kohms 10 Hz to 50 kHz: BASS: TREBLE:	PHONO (MM): 2.5 mV/47kΩ/kohms ± 3 dB ± 10 dB at 100 Hz ± 10 dB at 10 kHz
	Signal-to-noise ratio: Rated output (Pre out): Phono equalizer (PHONO input - REC OUT) RIAA deviation: Signal-to-noise ratio: Rated output/Maximum output: Distortion factor:	92dB (STEREO) 1.2 V ± 1 dB (20 Hz to 20 kHz) 74 dB (A weighting, with 5 mV input) 200 mV/8 V 0.03 % (1 kHz, 1 V)
• Tuner Section Receiving Range:	[FM] (note: μV at 75 Ω/ohms, 0 dB = 1 × 10 <sup>-15</sup> W) (AM SPACING: 9 kHz) 67.50 to 106.00 MHz (50 kHz step) (AM SPACING: 10 kHz) 67.50 to 107.90 MHz (200 kHz step)	[AM] (AM SPACING: 9 kHz) 522 to 1,611 kHz (9 kHz step) (AM SPACING: 10 kHz) 520 to 1,710 kHz (10 kHz step) 18 μV
	Usable Sensitivity: 50 dB Quietening Sensitivity: Signal to Noise Ratio (IHF-A): Total Harmonic Distortion (at 1 kHz)	1.0 μV (11.2 dB) MONO 1.6 μV (15.3 dB) STEREO 23 μV (38.5 dB) MONO 80 dB STEREO 75 dB MONO 0.15 % STEREO 0.3 %
• Video Section Standard video jacks Input and output level/impedance: Frequency response:	1 Vp-p/75 Ω/ohms 2 Hz to 8 MHz + 0, - 3 dB	
	• General Power supply: Power consumption: Maximum external dimensions: Weight:	AC 115/230V, 50/60 Hz (AVR-750/770) AC 220V, 50 Hz (AVR-760/780) 180 W 434 (W) x 142 (H) x 315 (D) mm (17-3/32" x 5-19/32" x 12-25/64") (AVR-750/760) 471 (W) x 143 (H) x 315 (D) mm (18-35/64" x 5-41/64" x 12-25/64") (AVR-770/780) 7.8 kg (17 lbs 7 oz) (AVR-750/760) 8.8 kg (19 lbs 7 oz) (AVR-770/780)
• Remote control unit System remote control RC-840:	Total buttons: DENON system code CD player: Cassette deck: AVR-750/760/770/780 fixed codes: Batteries: External dimensions: Weight:	28 6 buttons } (SWITCHED) 6 buttons } 22 buttons R6P/AA Type (two batteries) 51 (W) x 175 (H) x 18.5 (D) mm (2" x 6-57/64" x 47/64") 100 g (Approx. 3.5 oz) (including batteries)

\* For purposes of improvement, specifications and design are subject to change without notice.

## WIRE ARRANGEMENT

In case of wires require unclasp or loosening to move the location to perform adjustment or part replacement, be sure to rearrange them neatly to restore properly in the same location as they were originally placed, or causing to produce a noise may occasionally occur.

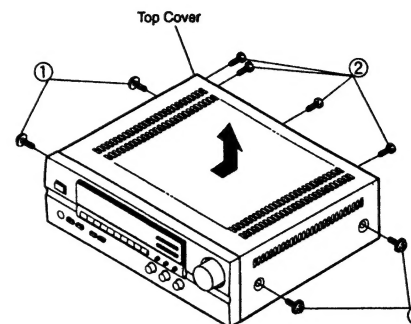


## DISASSEMBLY

(To reassemble reverse disassembly)

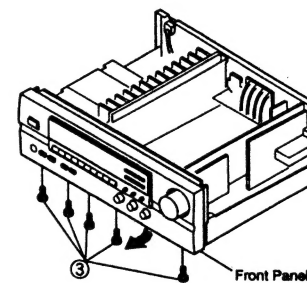
### 1. Top Cover

Remove 4 screws ① and 4 screws ②.



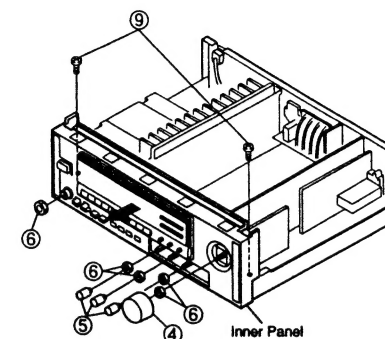
### 2. Front Panel

Remove 5 screws ③.



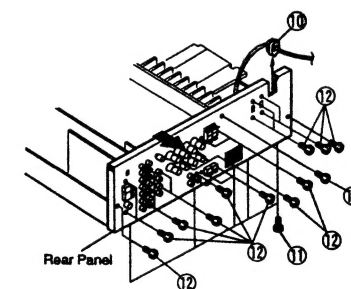
### 3. Inner Panel

- (1) Pull out Volume knob ④ and 3 round knobs ⑤.
- (2) Remove 5 nuts ⑥.
- (3) Remove 2 screws ⑨.



### 4. Rear Panel

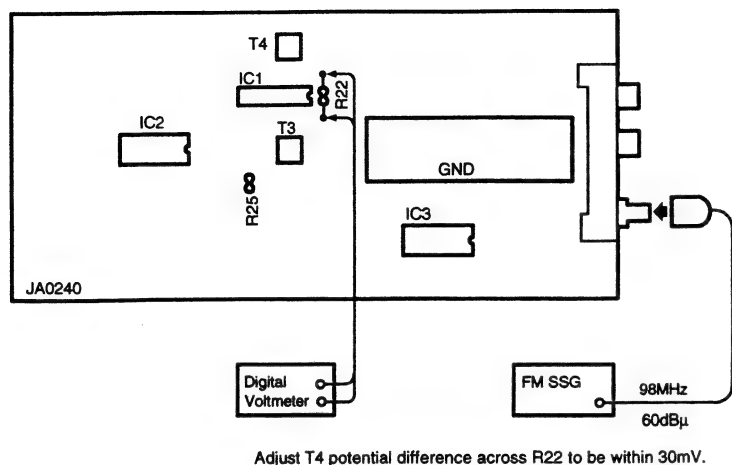
- (1) Disconnect cord bush ⑩.
- (2) Remove 5 screws ⑪, and 22 screws ⑫.
- \* Screws ⑫ are tighten.
- (3) Remove 1 screw ⑬.





## CONNECTION DIAGRAM OF MEASURING INSTRUMENTS

### ● FM SECTION



### ● Initiating (Memory clearing) Method

To clear memory contents of microcomputer and restore to the initial state, take the following steps;

1. Press power switch, turn off power of the unit, and set to standby mode.
2. Pull out power cord from wall outlet temporarily.
3. Insert power cord into outlet while simultaneously pressing two keys of VIDEO SELECT and TUNER.
4. Press power switch to confirm that memory contents are cleared.

By completion of the above, the initial state is restored. In case the memory can not be cleared due to some reasons, repeat steps 1 through 3.

#### Note:

When in the Standby mode, the unit is in the Power OFF state when turn Power SW ON with remote control.

### ● AUDIO SECTION

#### Idling Current (JA0241)

Required measurement equipment: DC Voltmeter

#### Arrangement

- (1) Avoid direct blow from an air conditioner or an electric fan, and adjust the unit at normal room temperature 15°C ~ 30°C. (59°F ~ 86°F).

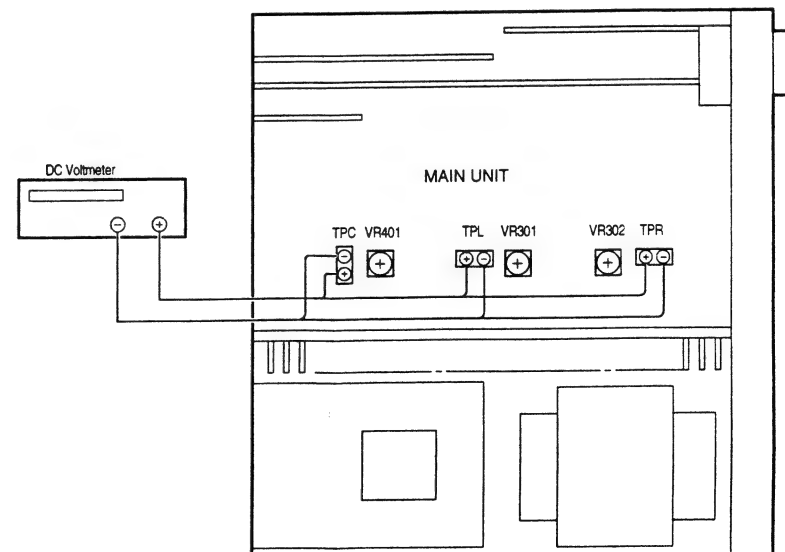
#### (2) Presetting

- |                               |  |
|-------------------------------|--|
| ● POWER (Power source switch) | → ON   |
| ● MODE (Mode button)          | → STEREO   |
| ● FUNCTION (Function button)  | → CD   |
| ● VOLUME (Volume control)     | → 0: fully counterclockwise ( 0 min.)                    |
| ● BASS, TREBLE (Tone control) | → 0: (Controls to center)                                |
| ● SPEAKERS (Speaker terminal) | → No load (Do not connect speaker, dummy resistor, etc.) |

#### Adjustment

- (1) Remove top cover and set VR401, VR301 and VR302 of JA0241 (Main Unit) at counterclockwise fully.
- (2) Connect DC Voltmeter to test points (Lch TPL, Rch TPR, CENTER ch TPC).
- (3) Connect power cord to AC Line, and turn power switch "ON".
- (4) Allow 15 minutes, and turn VR301, VR302 and VR401 clockwise ( ) and adjust the TEST POINTS voltage to 1.5 mV  $\pm$  0.5 mV DC.
- (5) After 2 minutes from preset, turn VR301, VR302 and VR401 to set the voltage to 3 mV  $\pm$  0.5mV DC.

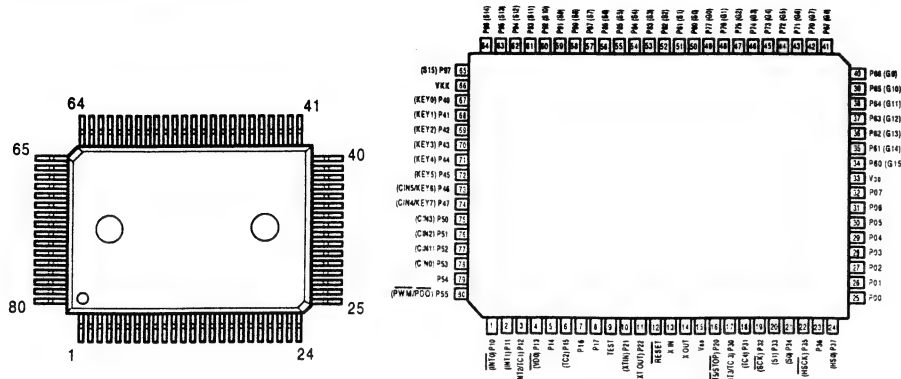
#### JA0241 Main Unit (Component Side)



## SEMICONDUCTORS

## ● IC's

## TMP87CM71F-6668 (IC701)



TMP87CM71F-6668 Terminal Function

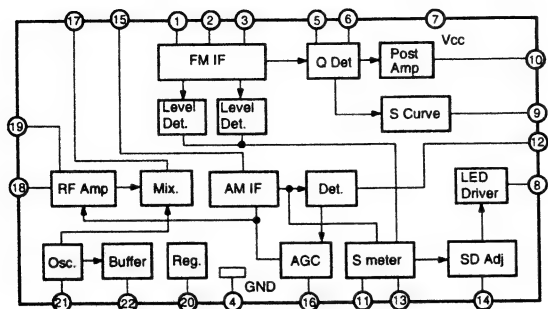
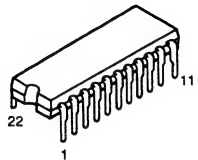
Pin No.	Symbol	I/O	Type	Op	Det	Res	Init	Function
1	STOP	I	—	Eu	Lv	Z	—	Detect power stop ("L" at power stop)
2	PROTECTION	I	—	Eu	E&L	Z	—	Protection input ("H" at protection)
3	EXP. DATA	O	C	—	—	Z	L	Port expand data output
4	EXP. CK	O	C	—	—	Z	L	Port expand clock output
5	EXP. STB	O	C	—	—	Z	L	Port expand strobe output
6	VR. CK	O	C	—	S	Z	L	TC9176 (electron VR) control clock output
7	VR. DATA	O	C	—	S	Z	L	TC9176 (electron VR) control data output
8	VR. STB	O	C	—	—	Z	L	TC9176 (electron VR) control strobe output
9	TEST	I	—	GND	—	—	—	Connect to ground.
10	TUNED	I	—	Eu	Lv	Z	—	"L" at stereo receive
11		O	—	—	—	Z	L	Fixed output on "L"
12	RESET	I	—	Eu	Lv	Z	—	Reset input
13	X IN	I	—	—	—	—	—	Oscillator circuit (4MHz)
14	X OUT	O	—	—	—	—	—	Oscillator circuit (4MHz)
15	GND	I	—	GND	—	—	—	Ground
16	RDS START	I	—	Eu	Ed	Z	—	RDS data, Start signal input (LC704)*
17	REMOCON	I	—	Eu	E&L	Z	—	Remote control signal input
18	STEREO	I	—	Eu	—	Z	L	"L" at TUNER stereo receive
19	RDS. CK	I	—	Eu	S	Z	—	RDS clock input (LC7074)
20	RDS. DATA	I	—	Eu	S	Z	—	RDS data input (LC7074)*
21	RDS. RESET	O	N	Eu	—	Z	L	RDS reset signal output (LC7074)*
22	PLL. CK	O	N	Eu	—	Z	L	LM7001 control clock output
23	PLL. STB	O	N	Eu	—	Z	L	LM7001 control strobe output
24	PLL. DATA	O	N	Eu	—	Z	L	LM7001 control data output
25	FUNC. DATA	O	C	—	—	Z	L	LC7822 (Function IC) control data output
26	FUNC. CK	O	C	—	—	Z	L	LC7822 (Function IC) control clock output
27	FUNC. STB	O	C	—	—	Z	L	LC7822 (Function IC) control strobe output
28	ST/MONO	O	C	—	—	Z	L	TUNER STEREO/MONO control output ("L" at STEREO)
29	POWER OFF	O	C	—	—	Z	L	"L" at ON
30	VOL. DOWN	O	C	—	—	Z	L	Electrically-drive volume control output (BA6208S)

\* port is fixed "L" at RDS non-selection mode.

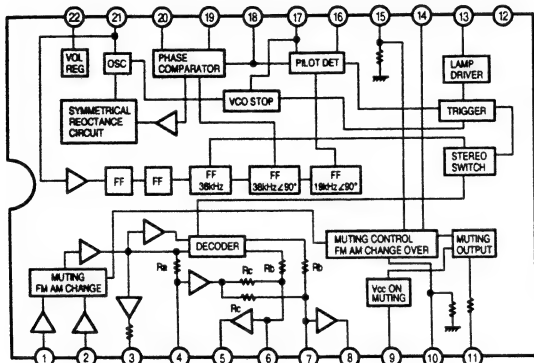
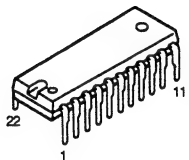
Pin No.	Symbol	I/O	Type	Op	Det	Res	Init	Function
31	VOL. UP	O	C	—	—	Z	L	Electrically-driven volume control output. (BA6208S)
32	SP-FRONT	O	C	—	—	Z	L	Front speaker relay control output.
33	V <sub>DD</sub>	I	—	—	—	—	—	Connect to +5V.
34	LED. PRO	O	P	Id	—	Z	H	DOLBY PROLOGIC indicating LED drive output. ("H" at light)
35	LED. STBY	O	P	Id	—	Z	H	Standby indicating LED drive output. ("H" at light)
36	1G	O	P	Id	—	L	L	FLD control output.
37	2G	O	P	Id	—	L	L	FLD control output.
38	3G	O	P	Id	—	L	H	FLD control output.
39	4G	O	P	Id	—	L	H	FLD control output.
40	5G	O	P	Id	—	L	L	FLD control output.
41	6G	O	P	Id	—	L	L	FLD control output.
42	7G	O	P	Id	—	L	H	FLD control output.
43	8G	O	P	Id	—	L	L	FLD control output.
44	9G	O	P	Id	—	L	L	FLD control output.
45	10G	O	P	Id	—	L	L	FLD control output.
46	11G	O	P	Id	—	L	H	FLD control output.
47	12G	O	P	Id	—	L	L	FLD control output.
48	13G	O	P	Id	—	L	H	FLD control output.
49	14G	O	P	Id	—	L	H	FLD control output.
50	P (a)	O	P	Id	—	L	H	FLD control output.
51	P (b)	O	P	Id	—	L	H	FLD control output.
52	P (c)	O	P	Id	—	L	H	FLD control output.
53	P (d)	O	P	Id	—	L	H	FLD control output.
54	P (e)	O	P	Id	—	L	L	FLD control output.
55	P (f)	O	P	Id	—	L	L	FLD control output.
56	P (g)	O	P	Id	—	L	L	FLD control output.
57	P (h)	O	P	Id	—	L	L	FLD control output.
58	P (i)	O	P	Id	—	L	L	FLD control output.
59	P (k)	O	P	Id	—	L	L	FLD control output.
60	P (m)	O	P	Id	—	L	L	FLD control output.
61	P (n)	O	P	Id	—	L	L	FLD control output.
62	P (p)	O	P	Id	—	L	L	FLD control output.
63	P (q)	O	P	Id	—	L	L	FLD control output.
64	P (r)	O	P	Id	—	L	L	FLD control output.
65	P (s)	O	P	Id	—	L	L	FLD control output.
66	VKK	I	—	—	—	—	—	Connect to VKK.
67	DD. CK	O	N	Eu	—	Z	H	NJU9701G (Delay time) control clock output.
68	DD. REQ	O	N	Eu	—	Z	H	NJU9701G (Delay time) control request output.
69	DD. DATA	O	N	Eu	—	Z	H	NJU9701G (Delay time) control data output.
70	MODE2	I	N	Eu	—	Z	—	Select occurring or no RDS function. ("H" at occurring RDS function)*
71	VIDEO A	O	N	Eu	—	Z	H	BU4066 (Video shift) control output. ("L" at selecting)
72	VIDEO B	O	N	Eu	—	Z	H	BU4066 (Video shift) control output. ("L" at selecting)
73	KEY 5	I	—	Eu	Lv	Z	—	Button input 5.
74	KEY 4	I	—	Eu	Lv	Z	—	Button input 4.
75	KEY 3	I	—	Eu	Lv	Z	—	Button input 3.
76	KEY 2	I	—	Eu	Lv	Z	—	Button input 2.
77	KEY 1	I	—	Eu	Lv	Z	—	Button input 1.
78	MODE 1	I	—	Eu	Lv	Z	—	Model version change input.
79	TU MUTE	O	N	Eu	—	Z	L	Tuner muting output. ("L" at muting)
80		O	N	Eu	—	Z	H	Fixed output on "H".

\* port is fixed "L" at RDS non-selection mode.

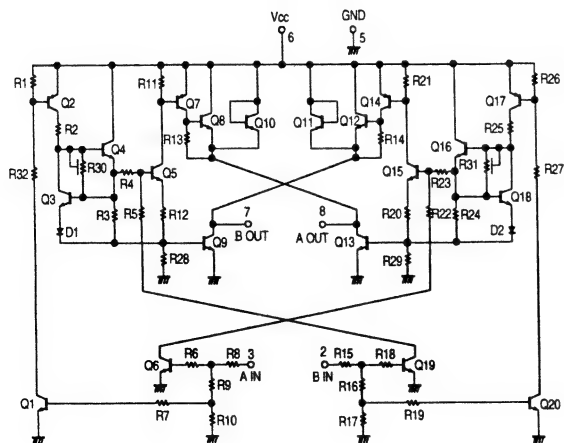
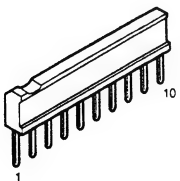
**LA1265 (S)**  
**(IC001)**



**LA3401**  
**(IC002)**

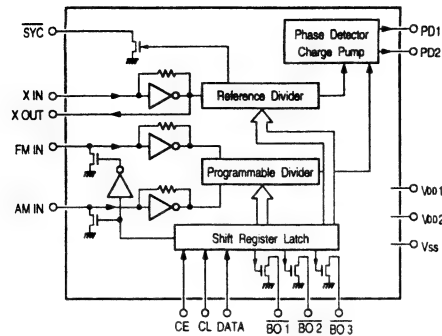
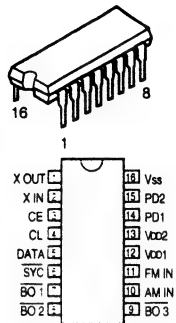


**BA6208S**  
**(IC265)**





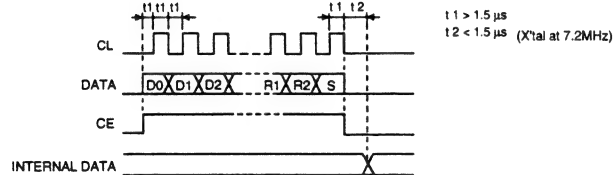
## LM7001 (IC003)



## Terminal Description

SYNC	: Clock for controller (400 kHz).
XIN, XOUT	: X'tal OSC (7.2 MHz).
FM IN, AM IN	: Station oscillation signal input.
CE, CL, DATA	: Data input.
BO1, BO2, BO3	: Band data output. BO1 is feasible for time base output (8 Hz).
VDD1, VDD2, Vss	: Power supply. (VDD2 is for back-up).
PD1, PD2	: Charge pump output.

## Data Input



Input from D0.

D0	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	T0	T1	B0	B1	B2	TB	R0	R1	R2
----	----	----	----	----	----	----	----	----	----	-----	-----	-----	-----	----	----	----	----	----	----	----	----	----

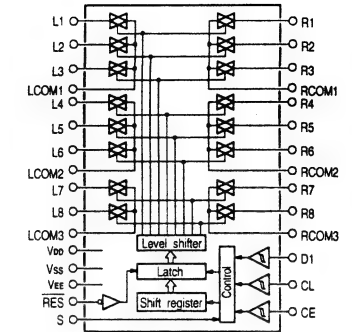
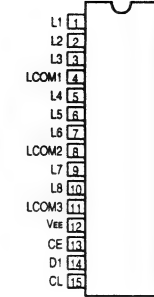
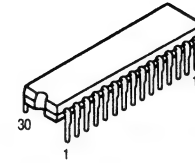
(1) D0(LSB)–D13(MSB) : Frequency dividend data  
For FMIN, use D0–D13; for AMIN, use D4–D13.

D0	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	
1	0	1	0	0	0	0	0	0	0	1	0	1	1	1
LSB													MSB	
	x	x	x	x	0	0	0	0	0	1	0	1	1	1
					LSB								MSB	

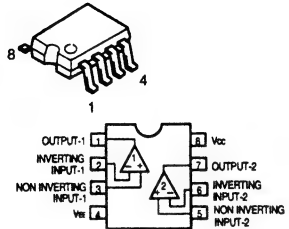
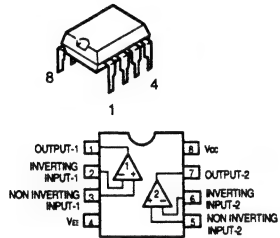
→ FMIN Frequency dividend number = 14853  
→ FMIN Frequency dividend number = 928

(2) T0, T1 : For test of LSI (0,0)

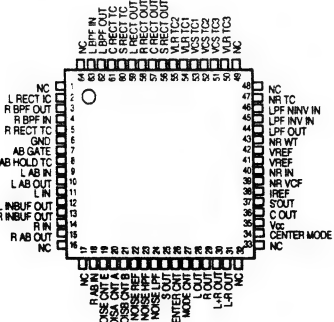
## LC78212 (IC102)



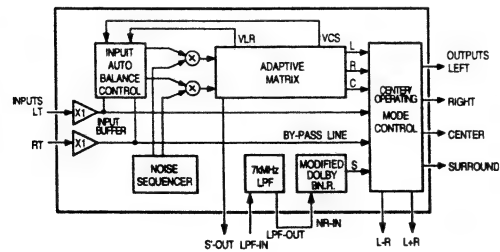
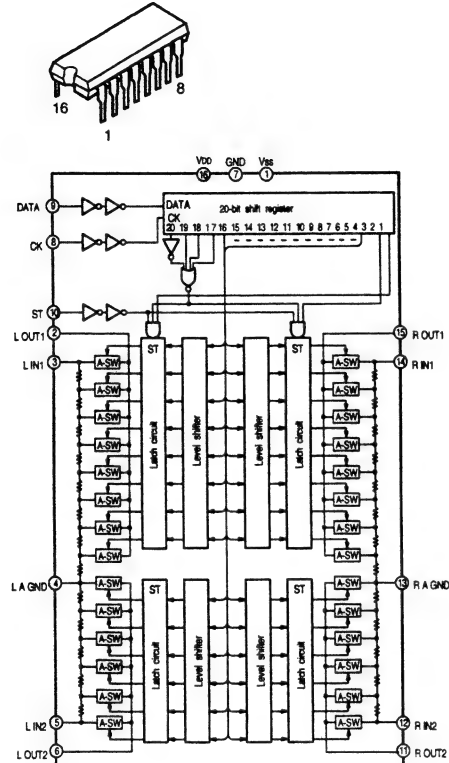
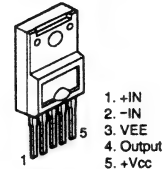
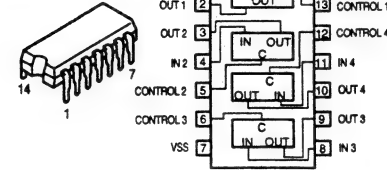
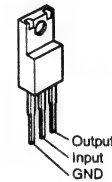
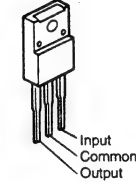
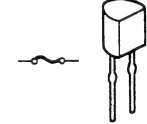
BA4558F (IC101, 103)

BA4558 (IC261, 263)  
BA15218 (IC451)

NJM2177AF (IC201)

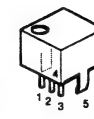


TC9176P (IC266)

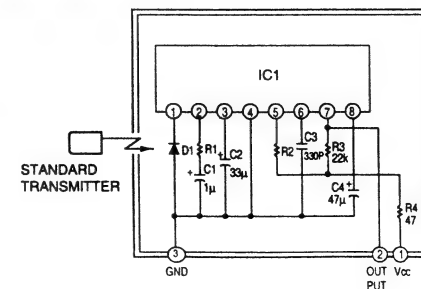
SI-18752  
(IC571, 572)BU4066BC  
(IC601)NJM7912FA  
(IC574)KIA7806PI  
(IC575)● IC PROTECTOR  
ICP-N20 (PR505, 506)

## ● OTHER

SBX1910 Remote Control Receiver)



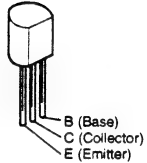
1. Vcc
2. Output
3. GND
4. Case Fin
5. Case Fin



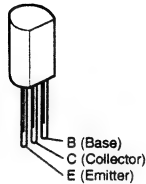
- IC1 : CX20106A Chip  
D1 : PIN Photo Diode Chip  
C1, C2, C4 : Aluminum Electrolytic Capacitor  
C3 : SL Characteristic  $\pm 5\%$   
R1 : Gain control resistor  
R2 : for control resistor (Using  $\pm 1\%$ )  
R (Other than above items) :  $\pm 5\%$

## ● TRANSISTORS

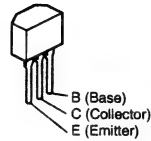
2SA970 (BL)  
2SA988 (E/F)  
2SA1015 (GR)  
2SC1815 (Y), (GR)  
2SC1841 (E/F)  
2SC2058 (Q)  
2SC2878 (A/B)  
2SC1841 (E/F)



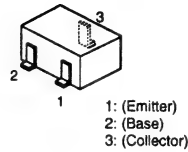
2SB647A (C)  
2SD667A (C)



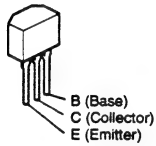
2SC2458



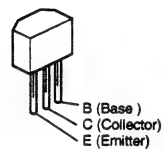
2SA1037K (S/R)  
2SC2412K (S)



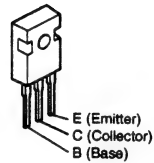
DTA114ES  
DTC114TS  
DTC114ES  
DTC144TS  
DTC323TS



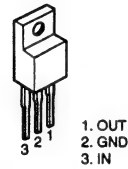
2SA933S (S)  
2SC1740 (S)



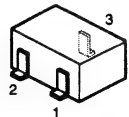
2SA1633  
2SC4278



NJM7812FA (S)

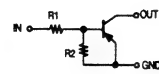


DTA114EKA  
DTC143EKA  
DTC144EKA

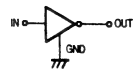
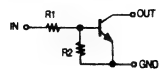


1: GND/Emitter  
2: In/Base  
3: Out/Collector

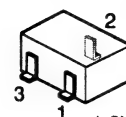
DTA114EKA



DTC143EKA  
DTC144EKA



DTC143EK  
DTC144EK



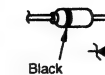
1: GND/Emitter  
2: Out/Collector  
3: In/Base

## ● DIODES (included LED)

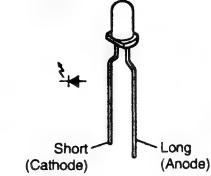
1S2471



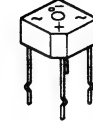
HZ9A3  
HZS6C



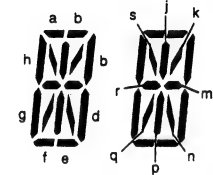
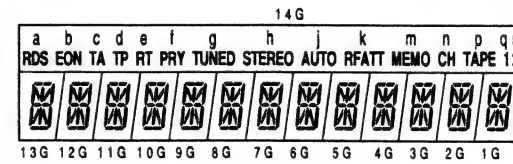
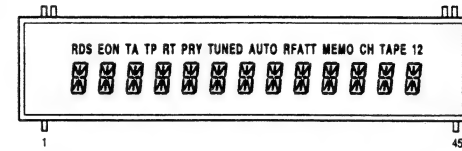
SLR54



S4VB20



MTZJ3.3A

● FLD  
(FL701)

## PIN CONNECTION

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Connection	F1	F1	NP	NP	NC	NC	NC	NC	NC	NC	NC	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	14G	13G	12G
Pin No.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45															
Connection	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NP	NP	F2	F2															

Note  
1) F1, F2 ..... Filament  
2) NP ..... No pin  
3) NC ..... No connection  
4) DL ..... Datum line  
5) 1G-14G ..... Grid

## ANODE CONNECTION

	14G	13G	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	RDS	a1	a1	a1	a1	a1	a1	a1	a1	a1	a1	a1	a1	a1
P2	EON	a2	a2	a2	a2	a2	a2	a2	a2	a2	a2	a2	a2	a2
P3	TA	b	b	b	b	b	b	b	b	b	b	b	b	b
P4	TP	c	c	c	c	c	c	c	c	c	c	c	c	c
P5	RT	d2	d2	d2	d2	d2	d2	d2	d2	d2	d2	d2	d2	d2
P6	PTY	d1	d1	d1	d1	d1	d1	d1	d1	d1	d1	d1	d1	d1
P7	TUNED	e	e	e	e	e	e	e	e	e	e	e	e	e
P8	STEREO	f	f	f	f	f	f	f	f	f	f	f	f	f
P9	AUTO	j	j	j	j	j	j	j	j	j	j	j	j	j
P10	RFATT	k	k	k	k	k	k	k	k	k	k	k	k	k
P11	MEMO	m	m	m	m	m	m	m	m	m	m	m	m	m
P12	CH	n	n	n	n	n	n	n	n	n	n	n	n	n
P13	TAPE	p	p	p	p	p	p	p	p	p	p	p	p	p
P14	1	r	r	r	r	r	r	r	r	r	r	r	r	r
P15	2	g	g	g	g	g	g	g	g	g	g	g	g	g
P16	—	h	h	h	h	h	h	h	h	h	h	h	h	h



## NOTE FOR PARTS LIST

- Part indicated with the mark "G" are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.
- When ordering of part, clearly indicate "I" and "I" (i) to avoid mis-supplying.
- Ordering part without stating its part number can not be supplied.
- Part indicated with the mark "\*" is not illustrated in the exploded view.
- Not including Carbon Film  $\pm 5\%$ , 1/4W Type in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)

## WARNING:

Parts marked with this symbol  $\Delta$  have critical characteristics.  
Use ONLY replacement parts recommended by the manufacturer.

## ● Resistors

Ex.:	RN Type	14K Shape and performance	2E Power	182 Resist- ance	G Allowable error	FR Others
	↓					↓
RD : Carbon			2B : 1/8W	F : $\pm 1\%$		P : Pulse-resistant type
RC : Composition			2E : 1/4W	G : $\pm 2\%$		NL : Low noise type
RS : Metal oxide film			2H : 1/2W	J : $\pm 5\%$		NB : Non-burning type
RW : Winding			3A : 1W	K : $\pm 10\%$		FR : Fuse-resistor
RN : Metal film			3D : 2W	M : $\pm 20\%$		F : Lead wire forming
RK : Metal mixture			3F : 3W			
			3H : 5W			

## \* Resistance

$\frac{1}{1} \frac{8}{2} \Rightarrow 1800 \text{ ohm} = 1.8 \text{ kohm}$   
Indicates number of zeros after effective number.  
2-digit effective number.

• Units: ohm

$\frac{1}{1} \frac{R}{2} \Rightarrow 1.2 \text{ ohm}$   
1-digit effective number.  
2-digit effective number, decimal point indicated by R.

• Units: ohm

## ● Capacitors

Ex:	CE	04W	1H	2B2	M	BP	Others
	Type	Shape and performance	Dielectric strength	Capacity	Allowable error	Others	
CE :	Aluminum foil electrolytic		0J : 6.3V	F : $\pm 1\%$		HS :	High stability type
CA :	Aluminum solid electrolytic		1A : 10V	G : $\pm 2\%$		BP :	Non-polar type
CS :	Tantalum electrolytic		1C : 18V	J : $\pm 5\%$		HR :	Ripple-resistant type
CQ :	Film		1E : 25V	K : $\pm 10\%$		DL :	For change and discharge
CK :	Ceramic		1V : 35V	M : $\pm 20\%$		HF :	For assuring high frequency
CC :	Ceramic		1H : 50V	Z : $\pm 80\%$		U :	UL part
CP :	Oil		2A : 100V	-20%		C :	CSA part
CM :	Mica		2B : 135V	P : $\pm 100\%$		W :	UL-CSA type
CF :	Metallized		2C : 180V	-0%		F :	Lead wire forming
CH :	Metallized		2D : 200V	C : $\pm 0.25pF$			
			2E : 250V	D : $\pm 0.5pF$			
			2H : 500V	-			
			2J : 630V	-			

## \* Capacity (electrolyte only)

$\frac{2}{2} \frac{2}{2} \Rightarrow 2200\mu\text{F}$   
Indicates number of zeros after effective number.  
2-digit effective number.

• Units:  $\mu\text{F}$ .

$\frac{2}{2} \frac{R}{2} \Rightarrow 2.2\mu\text{F}$   
1-digit effective number.  
2-digit effective number, decimal point indicated by R.

• Units:  $\mu\text{F}$ .

## \* Capacity (except electrolyte)

$\frac{2}{2} \frac{2}{2} \Rightarrow 2200\text{pF} = 0.0022\mu\text{F}$   
(More than 2) — Indicates number of zeros after effective number.  
2-digit effective number.

• Units:  $\mu\text{F}$ .

$\frac{2}{2} \frac{2}{1} \Rightarrow 220\text{pF}$   
(0 or 1) — Indicates number of zeros after effective number.  
2-digit effective number.

• Units: pF.

• When the dielectric strength is indicated in AC, "AC" is included after the dielectric strength value.

## PARTS LIST OF P.W.B. UNIT ASS'Y

## MAIN P.W.B. ASS'Y

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP							
IC451	263 0615 902	IC BA15218F		TR415	274 0060 007	Transistor 2SD667A(C)	
IC571	263 0655 005	IC SI18752		TR417	272 0053 005	Transistor 2SB647(C)	
IC572	263 0655 005	IC SI18752		TR419	273 0430 003	Transistor 2SC4278(E/F)	
IC573	263 0516 001	IC NJM7812FA		TR421	271 0276 009	Transistor 2SA1633(E/F)	
IC574		IC NJM7912FA		TR423	273 0235 020	Transistor 2SC1841(E/F)	
IC575	9LC P024 12	IC KIA7806PI		TR442	UDM D010 434	Transistor DTA114EKA	
				TR443	269 0048 904	Transistor DTC143EK	
				TR481	273 0384 900	Transistor 2SC2412K(Q/R)	
				TR482	273 0384 900	Transistor 2SC2412K(Q/R)	
IC601	262 1875 007	IC BU4066BCF		TR483	273 0384 900	Transistor 2SC2412K(Q/R)	
				TR484	273 0384 900	Transistor 2SC2412K(Q/R)	
IC913	9LC K089 01R	IC BU4094BCF		TR485	273 0384 900	Transistor 2SC2412K(Q/R)	
IC914	9LC K089 01R	IC BU4094BCF		TR486	273 0384 900	Transistor 2SC2412K(Q/R)	
				TR487	271 0238 908	Transistor 2SA1037K(Q/R)	
				TR488	269 0054 901	Transistor DTC144EK	
TR301	271 0094 016	Transistor 2SA970(BL)		TR531	273 0384 900	Transistor 2SC2412K(Q/R)	
TR302	271 0094 016	Transistor 2SA970(BL)		TR551	273 0384 900	Transistor 2SC2412K(Q/R)	
TR303	271 0094 016	Transistor 2SA970(BL)					
TR304	271 0094 016	Transistor 2SA970(BL)		TR601	273 0317 906	Transistor 2SC2458(BL)	
TR305	271 0131 021	Transistor 2SA988(E/F)		TR602	273 0317 906	Transistor 2SC2458(BL)	
TR306	271 0131 021	Transistor 2SA988(E/F)		TR603	271 0102 021	Transistor 2SA1015(GR)	
TR307	273 0235 020	Transistor 2SC1841(E/F)		TR604	271 0102 021	Transistor 2SA1015(GR)	
TR308	273 0235 020	Transistor 2SC1841(E/F)		TR651	273 0253 028	Transistor 2SC2878(B)	
TR309	273 0235 020	Transistor 2SC1841(E/F)		TR653	273 0253 028	Transistor 2SC2878(B)	
TR310	273 0235 020	Transistor 2SC1841(E/F)					
TR311	273 0235 020	Transistor 2SC1841(E/F)		TR801	269 0048 904	Transistor DTC143EK	
TR312	273 0235 020	Transistor 2SC1841(E/F)		TR802	273 0384 900	Transistor 2SC2412K(Q/R)	
TR313	273 0325 008	Transistor 2SC1815(GR)		TR803	UDM D010 434	Transistor DTA114EKA	
TR314	273 0325 008	Transistor 2SC1815(GR)					
TR315	274 0060 007	Transistor 2SD667A(C)		TR903	UDM D010 434	Transistor DTA114EKA	
TR316	274 0060 007	Transistor 2SD667A(C)		TR904	UDM D010 434	Transistor DTA114EKA	
TR317	272 0053 005	Transistor 2SB647A(C)					
TR318	272 0053 005	Transistor 2SB647A(C)		D301	276 0401 905	Diode 1SS133	
TR319	273 0430 003	Transistor 2SC4278(E/F)		D302	276 0401 905	Diode 1SS133	
TR320	273 0430 003	Transistor 2SC4278(E/F)		D303	276 0401 905	Diode 1SS133	
TR321	271 0276 009	Transistor 2SA1633(E/F)		D304	276 0401 905	Diode 1SS133	
TR322	271 0276 009	Transistor 2SA1633(E/F)		D305	276 0401 905	Diode 1SS133	
TR323	273 0235 020	Transistor 2SC1841(E/F)		D306	276 0401 905	Diode 1SS133	
TR324	273 0235 020	Transistor 2SC1841(E/F)		D307	9L2 3312 32M	Diode 1S2471B	
TR325	271 0131 021	Transistor 2SA988(E/F)		D308	9L2 3312 32M	Diode 1S2471B	
TR351	271 0131 021	Transistor 2SA988(E/F)		D309	9L2 3312 32M	Diode 1S2471B	
TR352	271 0131 021	Transistor 2SA988(E/F)		D310	9L2 3312 32M	Diode 1S2471B	
TR353	273 0384 900	Transistor 2SC2412K(Q/R)		D311	276 0401 905	Diode 1SS133	
TR354	271 0238 908	Transistor 2SA1037K(Q/R)		D312	276 0401 905	Diode 1SS133	
TR355	9L2 3286 25	Transistor 2SB647(C)		D351	276 0338 007	Diode S4VB20	
				D352	276 0401 905	Diode 1SS133	
TR401	271 0094 016	Transistor 2SA970(BL)					
TR403	271 0094 016	Transistor 2SA970(BL)		D401	276 0401 905	Diode 1SS133	
TR405	271 0131 021	Transistor 2SA988(E/F)		D403	276 0401 905	Diode 1SS133	
TR407	273 0235 020	Transistor 2SC1841(E/F)		D405	276 0401 905	Diode 1SS133	
TR409	273 0235 020	Transistor 2SC1841(E/F)		D407	9L2 3312 32M	Diode 1S2471B	
TR411	273 0235 020	Transistor 2SC1841(E/F)					
TR413	273 0325 901	Transistor 2SC1815(GR)					

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
D409	9L2 3312 32M	Diode 1S2471B		R315	241 2380 963	Carbon 2.2kohm	RD14S2E222J(NB)
D411	276 0401 905	Diode 1SS133		R316	241 2380 963	Carbon 2.2kohm	RD14S2E222J(NB)
D441	276 0401 905	Diode 1SS133		R317	241 2380 963	Carbon 2.2kohm	RD14S2E222J(NB)
D481	276 0401 905	Diode 1SS133		R318	241 2380 963	Carbon 2.2kohm	RD14S2E222J(NB)
D482	276 0401 905	Diode 1SS133		R319	241 2315 967	Carbon film 68ohm 1/4W (NB)	RD4S82E680JNB-FR
D483	276 0401 905	Diode 1SS133		R320	241 2315 967	Carbon film 68ohm 1/4W (NB)	RD4S82E680JNB-FR
D484	9L2 2000 03R	Diode SDDC-1SS355		R321	241 2377 976	Carbon 130ohm	RD14S2E131J(NB)
				R322	241 2377 976	Carbon 130ohm	RD14S2E131J(NB)
D571	276 0401 905	Diode 1SS133		R323	241 2377 976	Carbon 130ohm	RD14S2E131J(NB)
D572	276 0338 007	Diode 54VB20		R324	241 2377 976	Carbon 130ohm	RD14S2E131J(NB)
D573	276 0401 905	Diode 1SS133		R325		Chip 5.6kohm	RNC562J1-16
				R326		Chip 5.6kohm	RNC562J1-16
D616	276 0401 905	Diode 1SS133		R327		Chip 75kohm	RMC73M-1F753JR
D617	276 0401 905	Diode 1SS133		R328		Chip 75kohm	RMC73M-1F753JR
				R329		Carbon 9.1kohm	RDL-912J1-16LQ
D801	9L2 3980 54	Diode 1N4001-U01		R330		Carbon 9.1kohm	RDL-912J1-16LQ
D802	276 0401 905	Diode 1SS133		R331	241 2378 920	Carbon 220ohm	RD14S2E222J(NB)
D803	276 0401 905	Diode 1SS133		R332	241 2378 920	Carbon 220ohm	RD14S2E222J(NB)
D804	276 0401 905	Diode 1SS133		R333	244 2043 982	0.22ohm 1W	RE-R22J0001N
				R334	244 2043 982	0.22ohm 1W	RE-R22J0001N
D905	276 0401 905	Diode 1SS133		R335	244 2043 982	0.22ohm 1W	RE-R22J0001N
D912	276 0401 905	Diode 1SS133		R336	244 2043 982	0.22ohm 1W	RE-R22J0001N
				R337	244 2043 982	0.22ohm 1W	RE-R22J0001N
ZD301	DB8 00-0 112	Zener diode HZS6C2L		R338	244 2043 982	0.22ohm 1W	RE-R22J0001N
ZD302	DB8 00-0 112	Zener diode HZS6C2L		R339	244 2043 982	0.22ohm 1W	RE-R22J0001N
ZD351	9W2 3392 23	Zener diode HZS27-3L		R340	244 2043 982	0.22ohm 1W	RE-R22J0001N
				R341		Chip 20kohm	RMC73M-1F203JR
ZD401	DB8 00-0 112	Zener diode HZS6C2L		R342		Chip 20kohm	RMC73M-1F203JR
				R343		Chip 20kohm	RMC73M-1F203JR
ZD551	DB8 00-0 112	Zener diode HZS6C2L		R344		Chip 20kohm	RMC73M-1F203JR
ZD571	DB8 00-0 112	Zener diode HZS6C2L		R345		Chip 10kohm	RNC103J1-16
				R346		Chip 10kohm	RNC103J1-16
ZD801	276 0634 905	Zener diode MTZJ3.3A		R347		Chip 270kohm	RNC274J1-16
				R348		Chip 270kohm	RNC274J1-16
TH531	9LC J001 51	PTH9M04B222TS2F333		R349	241 2407 082	Carbon film 2.2ohm	RD14S1J2R2J
				R350	241 2407 082	Carbon film 2.2ohm	RD14S1J2R2J
				R351		Chip 22kohm	RNC223J1-16
				R352		Chip 22kohm	RNC223J1-16
				R353		Chip 20kohm	RMC73M-1F203JR
				R354		Chip 20kohm	RMC73M-1F203JR
				R358		Chip 10kohm	RNC103J1-16
				R359		Chip 10kohm	RNC103J1-16
R301		Chip 10kohm	RNC103J1-16	R361	244 2043 050	Metal oxide 470ohm 1W	RS08B3A471JS
R302		Chip 10kohm	RNC103J1-16	R362	244 2043 050	Metal oxide 470ohm 1W	RS08B3A471JS
R303		Chip 470ohm	RNC471J1-16	R371	244 2043 982	0.22ohm 1W	RE-R22J0001N
R304		Chip 470ohm	RNC471J1-16	R372	244 2043 982	0.22ohm 1W	RE-R22J0001N
R305		Carbon film 12kohm	RD14S1J123JQ	R373	244 2043 982	0.22ohm 1W	RE-R22J0001N
R306		Carbon film 12kohm	RD14S1J123JQ	R374	244 2043 982	0.22ohm 1W	RE-R22J0001N
R307		Chip 30ohm	RMC73M-1F300JR	R375		Chip 910ohm	RMC73M-1F911JR
R308		Chip 30ohm	RMC73M-1F300JR	R376		Chip 560kohm	RNC564J1-16
R309		Carbon film 10kohm	RD14S1J103JQ	R377		Chip 22kohm	RNC223J1-16
R310		Carbon film 10kohm	RD14S1J103JQ	R378		Chip 470ohm	RNC471J1-16
R311		Chip 47ohm	RNC470J1-16				
R312		Chip 47ohm	RNC470J1-16				
R313		Chip 430ohm	RMC73M-1F431JR				
R314		Chip 430ohm	RMC73M-1F431JR				

## RESISTORS GROUP

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
R379		Chip 3.6kohm	RMC73M-1F362JR	R465		Chip 220ohm	RNC221J1-16
R380		Chip 470ohm	RNC471J1-16	R466		Chip 220ohm	RNC221J1-16
R381		Chip 560kohm	RNC564J1-16	R467		Chip 11kohm	RMC73M-1F113JR
R383	241 2400 063	Carbon 7.5kohm	RDL-752J1-16LQ	R468		Chip 11kohm	RMC73M-1F113JR
R384	241 2315 967	Metal film 68ohm 1/4W	RN4S82E680JNB-FR	R469		Chip 1.8kohm	RNC182J1-16
R397	241 2402 003	Carbon 30kohm	RDL-303J1-16LQ	R470		Chip 1.8kohm	RNC182J1-16
R398	241 2402 003	Carbon 30kohm	RDL-303J1-16LQ	R471		Chip 6.8ohm	RNC68J1-16
				R472		Chip 6.8ohm	RNC68J1-16
R401		Chip 10kohm	RNC103J1-16	R473		Chip 200ohm	RMC73M-1F201JR
R402		Chip 1.5kohm	RNC152J1-16	R474		Chip 200ohm	RMC73M-1F201JR
R403		Carbon film 12kohm	RD14S1J123JQ	R475		Chip 39ohm	RNC390J1-16
R404		Chip 100ohm	RNC101J1-16	R476		Chip 39ohm	RNC390J1-16
R405		Carbon film 10kohm	RD14S1J103JQ	R477		Chip 100ohm	RNC101J1-16
R406		Chip 47ohm	RNC470J1-16	R478		Chip 100ohm	RNC101J1-16
R407		Chip 430ohm	RMC73M-1F431JR	R481	241 2321 087	Carbon 120ohm	RD14S2E121J(NB)
R408	241 2380 963	Carbon 2.2kohm	RD14S2E222J(NB)	R482	241 2321 087	Carbon 120ohm	RD14S2E121J(NB)
R409	241 2380 963	Carbon 2.2kohm	RD14S2E222J(NB)	R484		Chip 10kohm	RNC103J1-16
R410	241 2315 967	Metal film 68ohm 1/4W	RN4S82E680JNB-FR	R485		Chip 4.7kohm	RNC47J1-16
R411	241 2377 976	Carbon 130ohm	RD14S2E131J(NB)	R486		Chip 10kohm	RNC103J1-16
R412	241 2377 976	Carbon 130ohm	RD14S2E131J(NB)	R488		Chip 10kohm	RNC103J1-16
R413		Chip 6kohm	RNC562J1-16	R489		Chip 47ohm	RNC470J1-16
R414		Chip 75kohm	RMC73M-1F753JR	R490		Chip 4.7kohm	RNC472J1-16
R415		Carbon 9.1kohm	RDL-912J1-16LQ	R491		Chip 1kohm	RNC102J1-16
R416	241 2378 920	Carbon 220ohm	RD14S2E222J(NB)	R492		Chip 10kohm	RNC103J1-16
R417	244 2043 982	0.22ohm 1W	RE-R22J0001N	R493		Chip 47kohm	RNC473J1-16
R418	244 2043 982	0.22ohm 1W	RE-R22J0001N	R494		Chip 47kohm	RNC473J1-16
R419	244 2043 982	0.22ohm 1W	RE-R22J0001N	R496		Chip 4.7kohm	RNC472J1-16
R420	244 2043 982	0.22ohm 1W	RE-R22J0001N	R497		Chip 4.7kohm	RNC472J1-16
R421		Chip 20kohm	RMC73M-1F203JR	R498		Chip 4.7kohm	RNC472J1-16
R422		Chip 20kohm	RMC73M-1F203JR	R499		Chip 47ohm	RNC470J1-16
R424		Chip 270kohm	RNC274J1-16				
R425	241 2393 002	Carbon 4.7ohm	RD14S1J4R7J	R571		Chip 22kohm	RNC223J1-16
R426		Chip 2.2ohm	RNC223J1-16	R572		Chip 22kohm	RNC223J1-16
R427		Chip 20kohm	RMC73M-1F203JR	R573		Chip 1.2kohm	RNC122J1-16
R428		Chip 10kohm	RNC103J1-16	R574		Chip 1.2kohm	RNC122J1-16
R429		Chip 10kohm	RNC103J1-16	R575	241 2402 003	Carbon 30kohm	RDL-303J1-16LQ
R431	244 2051 987	4.7ohm 1W	RE-4R7J0001N	R576	241 2402 003	Carbon 30kohm	RDL-303J1-16LQ
R433		4.7ohm 1W	RE-4R7J0001N	R577	241 2393 002	Carbon film 4.7ohm	RD14S1J4R7J
R434		4.7ohm 1W	RE-4R7J0001N	R578	241 2393 002	Carbon film 4.7ohm	RD14S1J4R7J
R437		Chip 10kohm	RNC103J1-16	R579	244 2051 987	4.7ohm 1W	RE-4R7J0001N
R438		Chip 13kohm	RMC73M-1F133JR	R580	244 2051 987	4.7ohm 1W	RE-4R7J0001N
R442	241 0185 005	Carbon film 1kohm 1/2W (NB)	RD14S2H102JB	R581		Chip 20kohm	RMC73M-1F203JR
R443		Chip 2.2kohm	RNC222J1-16	R582		Chip 20kohm	RMC73M-1F203JR
R445		Carbon 120ohm	RDL-120J1-16	R583	241 2321 087	Carbon 120ohm	RD14S2E121J(NB)
R451		Chip 470ohm	RNC471J1-16	R584		Chip 390kohm	RNC394J1-16
R452		Chip 470ohm	RNC471J1-16	R585		Chip 10kohm	RNC103J1-16
R453		Chip 62kohm	RMC73M-1F623JR	R586		Chip 20kohm	RMC73M-1F203JR
R454		Chip 62kohm	RMC73M-1F623JR	R587		Chip 4.7kohm	RNC472J1-16
R457		Chip 62kohm	RMC73M-1F623JR				
R458		Chip 62kohm	RMC73M-1F623JR	R601	241 2395 097	Carbon 75ohm	RDL-750J1-16LQ
R463		Chip 1.2kohm	RNC122J1-16	R603	241 2395 097	Carbon 75ohm	RDL-750J1-16LQ
R464		Chip 1.2kohm	RNC122J1-16	R604	241 2400 995	Carbon 10kohm	RDL-103J1-16LQ

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
C421	254 4260 074	Electrolytic 4.7µF/50V	CE04W1H4R7MB(SS)	C590		Ceramic chip 0.01µF/50V	CK73MB1H103K
C422	254 4260 074	Electrolytic 4.7µF/50V	CE04W1H4R7MB(SS)	C591		Ceramic chip 0.01µF/50V	CK73MB1H103K
C425	253 1028 009	Ceramic 220pF/500V	CK45B2H21KB	C592	254 4256 033	Electrolytic 47µF/25V	CE04W1E470MB(SS)
C431	255 1134 054	Mylar film 0.1µF/50V	CQ92M1H104KEB	C593	254 4256 004	Electrolytic 10µF/25V	CE04W1E100MB(SS)
C432		Ceramic chip 0.01µF	CCT103M16D3	C594		Ceramic chip 0.01µF/50V	CK73MB1H103K
C433	255 4224 945	Mylar film 0.1µF/50V	CQ92M1H104KEB				
C434	255 4224 945	Mylar film 0.1µF/50V	CQ92M1H104KEB	C601	254 4256 033	Electrolytic 47µF/25V	CE04W1E470MB(SS)
C451	254 4256 004	Electrolytic 10µF/25V	CE04W1E100MB(SS)	C602	254 4256 033	Electrolytic 47µF/25V	CE04W1E470MB(SS)
C452	254 4256 004	Electrolytic 10µF/25V	CE04W1E100MB(SS)	C604	254 4254 080	Electrolytic 1000µF/16V	CE04W1C102MF
C455		Ceramic chip 100pF/50V	CT73MSL1H101J	C605		Ceramic chip 5pF	CCT5R050D3
C456		Ceramic chip 100pF/50V	CT73MSL1H101J	C606		Ceramic chip 5pF	CCT5R050D3
C457	254 4256 033	Electrolytic 47µF/25V	CE04W1E470MB(SS)	C607	254 4252 079	Electrolytic 1000µF/10V	CE04W1A102MF
C458	254 4256 033	Electrolytic 47µF/25V	CE04W1E470MB(SS)	C608	254 4252 079	Electrolytic 1000µF/10V	CE04W1A102MF
C459		Ceramic chip 2200pF/50V	CK73MB1H222K	C671		Ceramic chip 0.01µF/50V	CK73MB1H103K
C460		Ceramic chip 2200pF/50V	CK73MB1H222K	C672		Ceramic chip 0.01µF/50V	CK73MB1H103K
C461	256 1034 004	Mylar film 0.18µF	QCM-184J500R	C675	254 4256 046	Electrolytic 100µF/25V	CE04W1E101MB(SS)
C462	256 1034 004	Mylar film 0.18µF	QCM-184J500R	C676	254 4256 046	Electrolytic 100µF/25V	CE04W1E101MB(SS)
C463	254 4260 045	Electrolytic 1µF/50V	CE04W1H1R0MB(SS)	C677		Ceramic chip 0.01µF/50V	CK73MB1H103K
C464	254 4260 045	Electrolytic 1µF/50V	CE04W1H1R0MB(SS)				
C467		Ceramic chip 0.012µF/50V	CK73MB1H123K	C801	254 4250 084	Electrolytic 3300µF/6.3V	CE04W0J332M
C468		Ceramic chip 0.012µF/50V	CK73MB1H123K	C802		Ceramic chip 0.01µF/50V	CK73MB1H103K
C469		Ceramic chip 0.056µF/16V	CK73MB1C563K	C803		Ceramic chip 0.01µF/50V	CK73MB1H103K
C470		Ceramic chip 0.056µF/16V	CK73MB1C563K	C804	254 4260 074	Electrolytic 4.7µF/50V	CE04W1H4R7MB(SS)
C471	254 4196 928	Electrolytic 0.33µF/50V	CE04W1HR33(SRA)	C805	255 4199 915	Mylar film 0.12µF	QCM-124J500R
C472	254 4196 928	Electrolytic 0.33µF/50V	CE04W1HR133(SRA)	C806	254 4250 039	Electrolytic 220µF/6.3V	CE04W0J221MB(SS)
C473		Ceramic chip 0.047µF/50V	CK73MF1H473Z	C807		Ceramic chip 0.01µF/50V	CK73MB1H103K
C474		Ceramic chip 0.022µF/50V	CK73MF1H223Z				
C481	254 4256 033	Electrolytic 47µF/25V	CE04W1E470MB(SS)	C921	254 4250 039	Electrolytic 47µF/25V	CE04W1E470MB(SS)
C482	254 4256 042	Electrolytic 330µF/6.3V	CE04W0J331MB				
C498		Ceramic chip 0.1µF/25V	CK73MF1E104Z				
C499		Ceramic chip 0.1µF/25V	CK73MF1E104Z				
C526		Ceramic chip 0.01µF	CCT103M16D3				
C571	254 4260 058	Electrolytic 2.2µF/50V	CE04W1H2R2MB(SS)	CN004A		4P PH Pinpost	
C572	254 4260 058	Electrolytic 2.2µF/50V	CE04W1H2R2MB(SS)	CN004B		4P PH B-C Connector	L=80
C573		Ceramic chip 4700pF/50V	CK73MB1H472K	CN005A		4P MX Pinpost	
C574		Ceramic chip 4700pF/50V	CK73MB1H472K	CN006A		6P PIN Header	
C575		Ceramic chip 100pF/50V	CT73MSL1H101J	CN007A		8P PIN Header	
C576		Ceramic chip 100pF/50V	CT73MSL1H101J	CN008A		7P PIN Header	
C577	254 4256 033	Electrolytic 47µF/25V	CE04W1E470MB(SS)	CN009A		10P PIN Header	
C578	254 4256 033	Electrolytic 47µF/25V	CE04W1E470MB(SS)	CN010A		10P PIN Header	

Ref. No.	Part No.	Part Name	Remarks
<b>SEMICONDUCTORS GROUP</b>			
IC001	263 0891 001	IC LA1265S	
IC002	9LC P030 51	IS LA6401	
IC003	262 2348 009	IC LM7001	
IC101	263 0672 903	IC BA4558F	
IC102	9LC P030 51	IC LC78212	
IC103	263 0672 903	IC BA4558F	
IC201	263 0906 006	IC NJM2177AF	
IC202	9LC K050 32	IC NJU9702G	
IC203	262 1875 900	IC BU4068BCF	
IC205	262 1875 900	IC BU4C66BCF	
IC261	263 0672 903	IC BA4558F	
IC263	263 0672 903	IC BA4558F	
IC265	263 0905 007	IC BA6208F	
IC266	262 0625 009	IC TC9176P	
IC701	262 2455 002	IC TMP87CM71F-6668	
IC702	9LH N000 31	IC SBX1910-S2	
TR002	273 0434 902	Transistor 2SC2058S(Q)	
TR003	269 0046 906	Transistor DTA114ES	
TR004	269 0046 906	Transistor DTA114ES	
TR005	273 0198 002	Transistor 2SC1815Y	
TR006	275 0053 907	Transistor 2SK365(BU/GR)	
TR007	269 0072 909	Transistor DTC323TS	
TR008	269 0072 909	Transistor DTC323TS	
TR009	269 0079 902	Transistor DTC144TS	
TR010	269 0080 904	Transistor DTA114TS	
TR201	UDM D010 434	Transistor DTA114EKA	
TR202	269 0054 901	Transistor DTC114EKA	
TR203	269 0054 901	Transistor DTC144EKA	
TR205	269 0054 901	Transistor DTC144EKA	
TR206		Transistor DTC143EKA	
TR207	269 0054 901	Transistor DTC144EKA	
TR208	269 0054 901	Transistor DTC144EKA	
TR209	269 0054 901	Transistor DTC144EKA	
TR210	273 0303 910	Transistor 2SC1740S(S)	
TR552	273 0303 910	Transistor 2SC1740S(S)	
TR701	269 0020 906	Transistor DTC114ES	
TR702	269 0020 906	Transistor DTC114ES	
TR703	269 0062 906	Transistor DTC124ES	
D001	276 0401 905	Diode 1SS133	
D002	276 0401 905	Diode 1SS133	
D003	276 0401 905	Diode 1SS133	
D006	9L2 3980 64	Diode IN4001-U01	

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
D202	276 0401 905	Diode 1SS133		R035	241 2403 934	Carbon 100kohm	RDL-104J1-16LQ
D203	276 0401 905	Diode 1SS133		R036	241 2399 970	Carbon 3.3kohm	RDL-332J1-16LQ
D204	276 0401 905	Diode 1SS133		R037	241 2403 934	Carbon 100kohm	RDL-104J1-16LQ
D205	276 0401 905	Diode 1SS133		R038	241 2403 934	Carbon 100kohm	RDL-104J1-16LQ
D261	276 0401 905	Diode 1SS133		R039	241 2399 019	Carbon 1.8kohm	RDL-182J1-16LQ
				R040	241 2399 019	Carbon 1.8kohm	RDL-182J1-16LQ
D551	276 0401 905	Diode 1SS133		R041	241 2400 953	Carbon 6.8kohm	RDL-682J1-16LQ
D552	9L2 3980 64	Diode IN4001-U01		R042	241 2400 953	Carbon 6.8kohm	RDL-682J1-16LQ
D553	9L2 3980 64	Diode IN4001-U01		R043	241 2401 059	Carbon 18kohm	RDL-183J1-16LQ
D554	9L2 3980 64	Diode IN4001-U01		R044	241 2400 995	Carbon 10kohm	RDL-103J1-16LQ
D555	9L2 3980 64	Diode IN4001-U01		R045	241 2400 995	Carbon 10kohm	RDL-103J1-16LQ
D556	9L2 3980 64	Diode IN4001-U01		R046	241 2400 034	Carbon 5.6kohm	RDL-562J1-16LQ
D557	9L2 3980 64	Diode IN4001-U01		R050	241 2396 025	Carbon 100ohm	RDL-101J1-16LQ
				R051	241 2403 934	Carbon 100kohm	RDL-104J1-16LQ
D701	276 0401 905	Diode 1SS133		R052	241 2403 934	Carbon 100kohm	RDL-104J1-16LQ
D702	276 0401 905	Diode 1SS133		R065	241 2400 911	Carbon 4.7kohm	RDL-472J1-16LQ
D703	276 0401 905	Diode 1SS133					
ZD201	9L2 3390 31Q	Zener diode HZS6C1L		R101		Chip 390ohm	RNC391J1-16
				R102		Chip 390ohm	RNC391J1-16
ZD701	9L2 3390 73Q	Zener diode HZS9A3L		R103		Chip 68kohm	RNC683J1-16
				R104		Chip 68kohm	RNC683J1-16
LD701	9L2 3984 05	LED SLR54VC3F		R105		Chip 150kohm	RNC154J1-16
LD702	9L2 3984 05	LED SLR54VC3F		R106		Chip 150kohm	RNC154J1-16
				R107		Chip 47ohm	RNC470J1-16
				R108		Chip 47ohm	RNC470J1-16
<b>RESISTORS GROUP</b>				R109		Chip 750ohm	RMC73M-HF751JR
R005	241 2398 052	Carbon 1kohm	RDL-102J1-16LQ	R110		Chip 750ohm	RMC73M-HF751JR
R007	241 2400 911	Carbon 4.7kohm	RDL-472J1-16LQ	R111		Chip 560kohm	RNC564J1-16
R008	241 2397 943	Carbon 330ohm	RDL-331J1-16LQ	R112		Chip 560kohm	RNC564J1-16
R009	241 2397 008	Carbon 220ohm	RDL-221J1-16LQ	R113		Chip 47kohm	RNC473J1-16
R010	241 2399 019	Carbon 1.8kohm	RDL-182J1-16LQ	R114		Chip 47kohm	RNC473J1-16
R011	241 2398 052	Carbon 1kohm	RDL-102J1-16LQ	R115		Chip 22ohm	RNC220J1-16
R014	241 2396 025	Carbon 100ohm	RDL-101J1-16LQ	R116		Chip 22ohm	RNC220J1-16
R015	241 2400 979	Carbon 8.2kohm	RDL-822J1-16LQ	R117		Chip 100ohm	RNC101J1-16
R016	241 2399 996	Carbon 3.9kohm	RDL-392J1-16LQ	R118		Chip 100ohm	RNC101J1-16
R017	241 2397 066	Carbon 390ohm	RDL-391J1-16LQ	R119		Chip 470kohm	RNC474J1-16
R018	241 2396 960	Carbon 150ohm	RDL-151J1-16LQ	R120		Chip 470kohm	RNC474J1-16
R019	241 2396 025	Carbon 100ohm	RDL-101J1-16LQ	R121		Chip 1Mohm	RNC105J1-16
R020	241 2401 936	Carbon 15kohm	RDL-153J1-16LQ	R122		Chip 1Mohm	RNC105J1-16
R021	241 2396 944	Carbon 120ohm	RDL-121J1-16LQ	R123		Chip 1Mohm	RNC105J1-16
R022	241 2402 935	Carbon 39kohm	RDL-393J1-16LQ	R124		Chip 1Mohm	RNC105J1-16
R024	241 2400 953	Carbon 6.8kohm	RDL-682J1-16LQ	R125		Chip 1Mohm	RNC105J1-16
R025	241 2400 995	Carbon 10kohm	RDL-103J1-16LQ	R126		Chip 1Mohm	RNC105J1-16
R026	241 2400 995	Carbon 10kohm	RDL-103J1-16LQ	R127		Chip 1Mohm	RNC105J1-16
R027	241 2399 970	Carbon 3.3kohm	RDL-332J1-16LQ	R128		Chip 1Mohm	RNC105J1-16
R028	241 2400 089	Carbon 9.1kohm	RDL-912J1-16LQ	R133		Chip 470ohm	RNC471J1-16
R029	241 2402 090	Carbon 68kohm	RDL-683J1-16LQ	R134		Chip 470ohm	RNC471J1-16
R030	241 2402 980	Carbon 62kohm	RDL-623J1-16LQ	R135		Chip 470ohm	RNC471J1-16
R031	241 2402 980	Carbon 62kohm	RDL-623J1-16LQ	R136		Chip 470ohm	RNC471J1-16
R032	241 2403 934	Carbon 100kohm	RDL-104J1-16LQ	R137		Chip 470ohm	RNC471J1-16
R033	241 2403 950	Carbon 120kohm	RDL-124J1-16LQ	R138		Chip 470ohm	RNC471J1-16
R034	241 2403 950	Carbon 120kohm	RDL-124J1-16LQ	R139		Chip 470ohm	RNC471J1-16



Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
R140		Chip 470ohm	RNC471J1-16	R239		Chip 100ohm	RNC101J1-16
R141		Chip 470ohm	RNC471J1-16	R240		Chip 100ohm	RNC101J1-16
R142		Chip 470ohm	RNC471J1-16	R241		Chip 47kohm	RNC473J1-16
R143		Chip 470ohm	RNC471J1-16	R242		Chip 47kohm	RNC473J1-16
R144		Chip 470ohm	RNC471J1-16	R243		Chip 100kohm	RNC104J1-16
R145		Chip 680kohm	RNC684J1-16	R251		Chip 2.2kohm	RNC222J1-16
R151		Chip 12kohm	RNC123J1-16	R252		Chip 2.2kohm	RNC222J1-16
R152		Chip 12kohm	RNC123J1-16	R253		Chip 4.7kohm	RNC472J1-16
R153		Chip 56kohm	RNC563J1-16	R254		Chip 4.7kohm	RNC472J1-16
R154		Chip 56kohm	RNC563J1-16	R265		Chip 220kohm	RNC224J1-16
R155		Chip 100kohm	RNC104J1-16	R266		Chip 1kohm	RNC102J1-16
R156		Chip 100kohm	RNC104J1-16	R267		Chip 3.3kohm	RNC332J1-16
R157		Chip 100ohm	RNC101J1-16	R268		Chip 100ohm	RNC101J1-16
R158		Chip 100ohm	RNC101J1-16	R269		Chip 100kohm	RNC104J1-16
R159		Chip 100ohm	RNC101J1-16	R270		Chip 100kohm	RNC104J1-16
R160		Chip 100ohm	RNC101J1-16	R271		Chip 220kohm	RNC224J1-16
				R272		Chip 1kohm	RNC102J1-16
R201		Chip 7.5kohm	RMC73M-1F752JR	R273		Chip 3.3kohm	RNC332J1-16
R202		Chip 47kohm	RNC473J1-16	R274		Chip 100ohm	RNC101J1-16
R203		Chip 15kohm	RNC153J1-16	R280		Chip 100ohm	RNC101J1-16
R204		Chip 7.5kohm	RMC73M-1F752JR	R281		Chip 470kohm	RNC474J1-16
R205		Chip 47kohm	RNC473J1-16	R282		Chip 1kohm	RNC102J1-16
R206		Chip 15kohm	RNC153J1-16	R283		Chip 5.6kohm	RNC562J1-16
R207		Chip 7.5kohm	RMC73M-1F752JR	R284		Chip 33kohm	RNC333J1-16
R208		Chip 56kohm	RNC563J1-16	R285		Chip 470kohm	RNC474J1-16
R209		Chip 56kohm	RNC563J1-16	R286		Chip 100ohm	RNC101J1-16
R210		Chip 100kohm	RNC104J1-16	R287		Chip 1kohm	RNC102J1-16
R211		Chip 100kohm	RNC104J1-16	R288		Chip 5.6kohm	RNC562J1-16
R212		Chip 15kohm	RNC153J1-16	R290		Chip 33kohm	RNC333J1-16
R213		Chip 8.2kohm	RNC822J1-16	R296		Chip 10kohm	RNC103J1-16
R214		Chip 15kohm	RNC153J1-16	R297		Chip 10kohm	RNC103J1-16
R215		Chip 330kohm	RNC334J1-16	R298	241 2321 032	Carbon 4.7ohm	RD14S2E4R7J(NB)
R218		Chip 47kohm	RNC473J1-16				
R219		Chip 47kohm	RNC473J1-16	R301	241 2396 025	Carbon 100ohm	RDL-101J1-16
R220		Chip 47kohm	RNC473J1-16	R302	241 2396 025	Carbon 100ohm	RDL-101J1-16
R221		Chip 8.2kohm	RNC822J1-16				
R222		Chip 8.2kohm	RNC822J1-16	R590	241 2400 911	Carbon 4.7kohm	RDL-472J1-16LQ
R223		Chip 8.2kohm	RNC822J1-16	R591	241 2400 911	Carbon 10kohm	RDL-103J1-16LQ
R224		Chip 1Mohm	RNC105J1-16	R592	241 2375 978	Carbon 20ohm	RD14S2E200J(NR)
R225		Chip 15kohm	RNC153J1-16				
R226		Chip 18kohm	RNC183J1-16	R701	241 2398 052	Carbon 1kohm	RDL-102J1-16LQ
R227		Chip 15kohm	RNC153J1-16	R702	241 2396 979	Carbon 200ohm	RDL-201J1-16LQ
R228		Chip 20ohm	RMC73M-1F200JR	R703	241 2397 037	Carbon 300ohm	RDL-301J1-16LQ
R229		Chip 20ohm	RMC73M-1F200JR	R704	241 2397 082	Carbon 510ohm	RDL-511J1-16LQ
R230		Chip 7.5kohm	RMC73M-1F752JR	R707	241 2398 052	Carbon 1kohm	RDL-102J1-16LQ
R231		Chip 5.6kohm	RNC562J1-16	R708	241 2396 999	Carbon 200ohm	RDL-201J1-16LQ
R232		Chip 18kohm	RNC183J1-16	R709	241 2397 037	Carbon 300ohm	RDL-301J1-16LQ
R233		Chip 47kohm	RNC473J1-16	R710	241 2397 082	Carbon 510ohm	R

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
R720	241 2396 999	Carbon 200ohm	RDL-201J1-16LQ	C039		Ceramic 0.01μF/16V	CCT103M16D3
R721	241 2397 037	Carbon 300ohm	RDL-301J1-16LQ	C040	254 4260 045	Electrolytic 1μF/50V	CE04W1H1ROMB(SSL)
R722	241 2397 082	Carbon 510ohm	RDL-511J1-16LQ	C041	254 4256 033	Electrolytic 47μF/25V	CE04W1E470MB(SSL)
R723	241 2398 052	Carbon 1kohm	RDL-102J1-16LQ	C042	254 4260 045	Electrolytic 1μF/50V	CE04W1H1ROMB(SSL)
R724	241 2399 064	Carbon 3kohm	RDL-302J1-16LQ	C043	254 4196 012	Electrolytic 0.22μF/50V	CE04W1H2R22(SRA)
R725	241 2398 052	Carbon 1kohm	RDL-102J1-16LQ	C044	254 4260 045	Electrolytic 1μF/50V	CE04W1H1ROMB(SSL)
R726	241 2396 979	Carbon 200ohm	RDL-201J1-16LQ	C045		Ceramic 0.01μF/16V	CCT103M16D3
R727	241 2397 037	Carbon 300ohm	RDL-301J1-16LQ	C046	254 4260 058	Electrolytic 2.2μF/50V	CE04W1H2R2MB(SSL)
R728	241 2397 082	Carbon 510ohm	RDL-511J1-16LQ	C047	254 4260 058	Electrolytic 2.2μF/50V	CE04W1H2R2MB(SSL)
R729	241 2398 052	Carbon 1kohm	RDL-102J1-16LQ	C048	254 4260 045	Electrolytic 1μF/50V	CE04W1H1ROMB(SSL)
R730	241 2399 064	Carbon 3kohm	RDL-302J1-16LQ	C049		Ceramic 0.01μF/16V	CCT103M16D3
R731	241 2400 911	Carbon 4.7kohm	RDL-472J1-16LQ	C051	254 4260 058	Electrolytic 2.2μF/50V	CE04W1H2R2MB(SSL)
R732	241 2398 052	Carbon 1kohm	RDL-102J1-16LQ	C052	254 4260 087	Electrolytic 10μF/50V	CE04W1H100MB(SSL)
R733	241 2399 051	Carbon 2.7kohm	RDL-272J1-16LQ	C053		Ceramic 680pF/50V	CCT681K50D3
R734	241 2400 092	Carbon 10kohm	RDL-103J1-16LQ	C054		Ceramic 680pF/50V	CCT681K50D3
R735	241 2400 092	Carbon 10kohm	RDL-103J1-16LQ	C056		Ceramic 0.01μF/16V	CCT103M16D3
R736	241 2400 092	Carbon 10kohm	RDL-103J1-16LQ	C057		Ceramic 0.01μF/16V	CCT103M16D3
R737	241 2400 092	Carbon 10kohm	RDL-103J1-16LQ	C059		Ceramic 0.01μF/16V	CCT103M16D3
R738		Carbon 2kohm	RDL-202J1-16LQ	C060		Ceramic 0.01μF/16V	CCT103M16D3
R742	241 2397 943	Carbon 330ohm	RDL-331J1-16LQ	C065		Ceramic 0.01μF/16V	CCT103M16D3
R743	241 2397 943	Carbon 330ohm	RDL-331J1-16LQ				
R744	241 2397 943	Carbon 330ohm	RDL-331J1-16LQ	C101		Ceramic 220pF/50V	CCT73MSL1H221J
R745	241 2400 092	Carbon 10kohm	RDL-103J1-16LQ	C102		Ceramic 220pF/50V	CCT73MSL1H221J
VR261	9LA Y001 71	Variable resistor 100kohm	Master volume	C103	254 4256 004	Electrolytic 10μF/25V	CE04W1E100MB(SSL)
<b>CAPACITORS GROUP</b>				C104	254 4256 004	Electrolytic 10μF/25V	CE04W1E100MB(SSL)
C004		Ceramic 12pF/50V	CCT120J50D3	C105		Ceramic 100pF/50V	CCT73MSL1H101J
C007		Ceramic 0.01μF/16V	CCT103M16D3	C106		Ceramic 100pF/50V	CCT73MSL1H101J
C008		Ceramic 0.01μF/16V	CCT103M16D3	C107	254 4254 022	Electrolytic 33μF/16V	CE04W1C330MB(SSL)
C011	254 3056 917	Electrolytic 1μF/50V	CE04W1H1ROMB(BP)	C108	254 4254 022	Electrolytic 33μF/16V	CE04W1C330MB(SSL)
C013	254 4196 009	Electrolytic 0.1μF/50V	CE04W1H0R1M(SRA)	C109	255 1251 982	Mylar film 5600pF/50V	CQ92M1H562JB
C014		Ceramic 0.022μF/50V	CCT223Z50D3	C110	255 1251 982	Mylar film 5600pF/50V	CQ92M1H562JB
C016		Ceramic 100pF/50V	CCT101Z50D3	C111		Ceramic 1500pF/50V	CK73MB1H152K
C017		Ceramic 0.01μF/16V	CCT103M16D3	C112		Ceramic 1500pF/50V	CK73MB1H152K
C018		Ceramic 0.01μF/16V	CCT103M16D3	C113		Ceramic 0.01μF/50V	CK73MF1H103Z
C019	254 4260 032	Electrolytic 0.47μF/50V	CE04W1H47MB(SSL)	C114		Ceramic 0.01μF/50V	CK73MF1H103Z
C020	254 4260 045	Electrolytic 1μF/50V	CE04W1H1ROMB(SSL)	C115	254 4260 058	Electrolytic 2.2μF/50V	CE04W1H2R2MB(SSL)
C021	254 4260 087	Electrolytic 10μF/50V	CE04W1H100MB(SSL)	C116	254 4260 058	Electrolytic 2.2μF/50V	CE04W1H2R2MB(SSL)

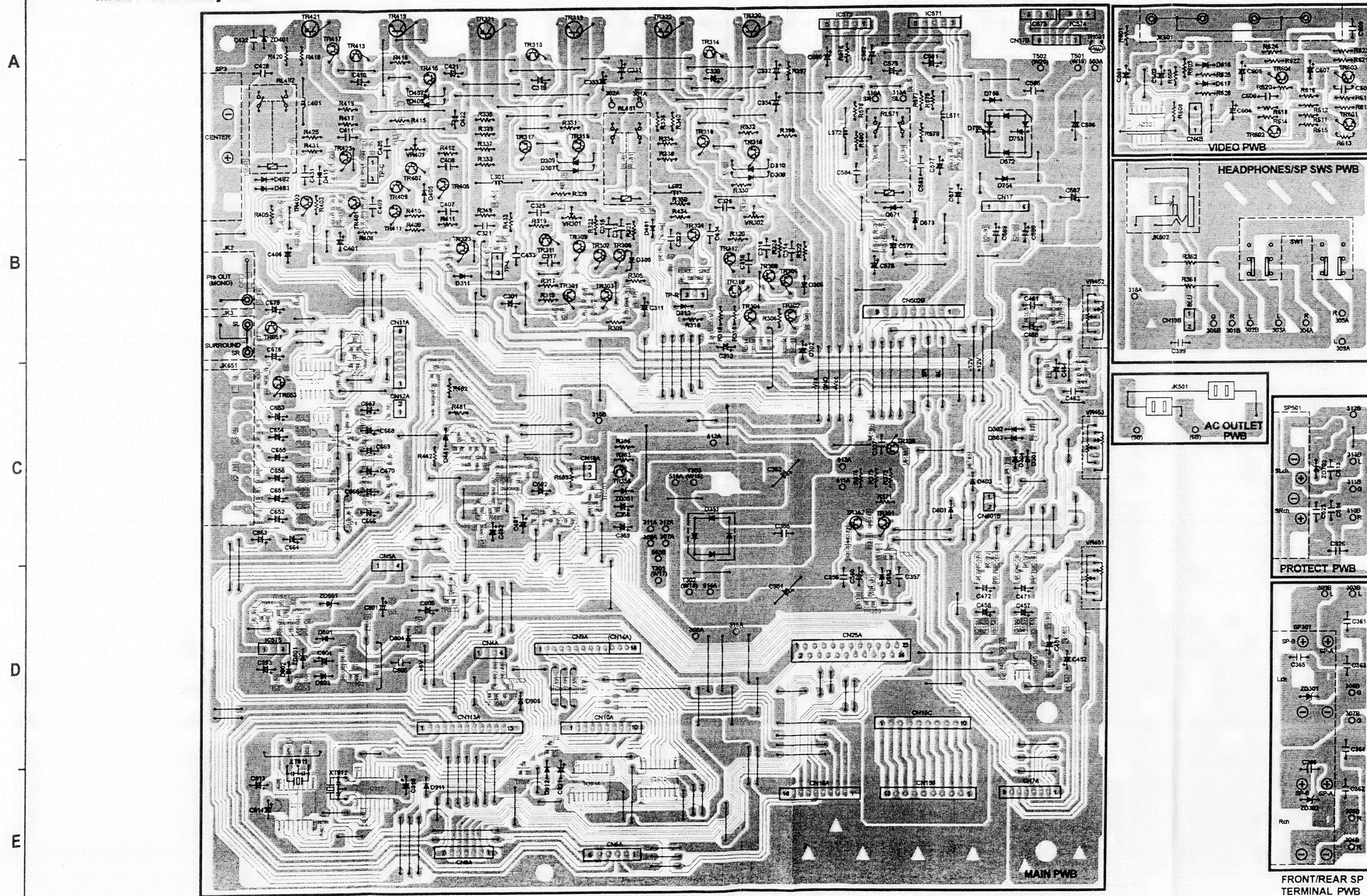
Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
<b>OTHER PARTS GROUP</b>				SW719	9L2 6396 82R	Tact switch	
CF001	261 0135 907	Ceramic filter SFE10.7MA-8	AVR-750/770 Models only	SW720	9L2 6396 82R	Tact switch	
CF002	261 0136 906	Ceramic filter SFE10.7MS2G-A	AVR-750/770 Models only	SW721	9L2 6396 82R	Tact switch	
CF003	9LB P005 01	Ceramic filter BFU450C4		SW722	9L2 6396 82R	Tact switch	
CF004	9LB P004 91	Ceramic filter CMU2-456A16		SW723	9L2 6396 82R	Tact switch	
				SW724	9L2 6396 82R	Tact switch	
CN001A		2P MX Pin post	AVR-750/770 Models only	SW725	9L2 6396 82R	Tact switch	
CN001B		2P MX B-C Connector L=350	AVR-750/770 Models only	SW726	9L2 6396 82R	Tact switch	
CN002A		2P TXL B-C Connector L=100		SW727	9L2 6396 82R	Tact switch	
CN002B		2PTXL Pin post		SW728	9L2 6396 82R	Tact switch	
CN005B		4P MX B-C Connector L=350		SW729	9L2 6396 82R	Tact switch	
CN006B		6P Socket		SW730	9L2 6396 82R	Tact switch	
CN008B		7P Socket		SW731	9LF E002 03	Push switch	
CN007B		8P Socket					
CN009B		10P PH B-C Connector L=270		JK101	9LE R002 23	6P US PIN Jack	
CN010B		10P Socket		JK102	9LE R002 22	8P US PIN Jack	
CN015B		10P Socket					
CN016B		10P Socket		L201	9L2 1222 54F	Choke coil 120μH	
CN013B		13P Socket					
CN015A		10P Socket		▲ RL551	9LF J000 51	Power relay	
CN003A		2P PH B-C Connector L=270					
CN003B		2P PH Pin post		PG001	—	2P VH Pin post	
CN025B	9LE D008 22	25P FFC Connector		T003	9LB J002 51	AM IFT	
				T004	9L2 1370 33	FM DET Trans	
E003	9L2 7292 52R	Fuse holder					
E004	9L2 7292 52R	Fuse holder		▲ T501	9LB T005 32	Sub power trans	AVR-750/780 Models only
E005	9L2 7292 52R	Fuse holder	AVR-750/770 Models only	▲ T501	9LB T005 33	Sub power trans	AVR-750/770 Models only
E006	9L2 7292 52R	Fuse holder	AVR-750/770 Models only				
				TU001	9LH H000 31	Tuner pack	
E500	9L2 7292 52R	Fuse holder					
E501	9L2 7292 52R	Fuse holder		XT001	9L2 1701 32	Crystal 7.2MHz	
E502	9L2 7292 52R	Fuse holder					
E503	9L2 7292 52R	Fuse holder		XT201	399 0223 907	Crystal CSA2.00MG	
E705	9LN J017 11	FL holder		XT701	399 9018 003	Crystal 4MHz	
FL701	9LD D000 41	FL Tube					
				W003		1P Board-in connector (WHT)	
SW002	9L2 6225 21	Slide switch	AVR-750/770 Models only	W004		1P Board-in connector (ORG)	
				W007		1P Board-in connector (GRY)	
S552	9LF G000 11	Voltage selector	AVR-750/770 Models only	W008		1P Board-in connector (RED)	AVR-750/770 Models only
S553	9LF G000 11	Voltage selector	AVR-750/770 Models only	W009		1P Board-in connector (ORG)	AVR-750/770 Models only
				W010		1P Board-in connector (BLU)	AVR-750/770 Models only
SW702	9L2 6396 82R	Tact switch		W011		1P Board-in connector (GRY)	AVR-750/770 Models only
SW703	9L2 6396 82R	Tact switch		W012		1P Board-in connector (WHT)	AVR-750/770 Models only
SW704	9L2 6396 82R	Tact switch		W013		1P Board-in connector (GRY)	AVR-750/770 Models only
SW708	9L2 6396 82R	Tact switch		W014		1P Board-in connector (BLU)	AVR-750/770 Models only
SW709	9L2 6396 82R	Tact switch		W015		1P Board-in connector (WHT)	AVR-750/770 Models only
SW710	9L2 6396 82R	Tact switch					
SW711	9L2 6396 82R	Tact switch		AT001	9LE U000 11	ANT Terminal	
SW712	9L2 6396 82R	Tact switch					
SW713	9L2 6396 82R	Tact switch		BL001	9LB H005 31	MW ANT OSC Coil	

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
C201	255 4224 945	Mylar film 0.1μF/50V	CQ92M1H104KB	C253		Ceramic 5600pF/50V	CK73MB1H562K
C202	255 4224 945	Mylar film 0.1μF/50V	CQ92M1H104KB	C254		Ceramic 5600pF/50V	CK73MB1H562K
C203		Ceramic 680pF/50V	CQ73MSL1H681J	C255		Ceramic 0.1μF/25V	CK73MF1E104Z
C204	255 4212 054	Mylar film 0.047μF/50V	CQ92M1H473KB	C256	254 4256 004	Electrolytic 10μF/25V	CE04W1E100MB(SSL)
C205	255 4224 945	Mylar film 0.1μF/50V	CQ92M1H104KB	C257	254 4252 037	Electrolytic 100μF/10V	CE04W1A101MB
C206	255 4224 945	Mylar film 0.1μF/50V	CQ92M1H104KB	C258	254 4256 033	Electrolytic 47μF/25V	CE04W1E470MB(SSL)
C207		Ceramic 680pF/50V	CQ73MSL1H681J	C259		Ceramic 220pF/50V	CC73MCH1H221J
C208	255 4212 054	Mylar film 0.047μF/50V	CQ92M1H473KB	C260		Ceramic 220pF/50V	CC73MCH1H221J
C209	254 4260 993	Electrolytic 22μF/50V	CE04W1H220MB(SSL)	C261	254 4260 045	Electrolytic 1μF/50V	CE04W1H1R0MB(SSL)
C210	254 4256 004	Electrolytic 10μF/25V	CE04W1E100MB(SSL)	C262	254 4260 045	Electrolytic 1μF/50V	CE04W1H1R0MB(SSL)
C211	254 4256 004	Electrolytic 10μF/25V	CE04W1E100MB(SSL)	C265	254 4256 004	Electrolytic 10μF/25V	CE04W1E100MB(SSL)
C212	254 4252 037	Electrolytic 100μF/10V	CE04W1A101MB	C266	254 4256 004	Electrolytic 10μF/25V	CE04W1E100MB(SSL)
C213	255 1241 940	Mylar film 4700pF/50V	CQ92M1H472JB	C268	254 4256 004	Electrolytic 10μF/25V	CE04W1E100MB(SSL)
C214	254 4260 993	Electrolytic 22μF/50V	CE04W1H220MB(SSL)	C269		Ceramic 470pF/50V	CC73MSL1H471J
C215	254 4256 004	Electrolytic 10μF/25V	CE04W1E100MB(SSL)	C270	254 4256 004	Electrolytic 10μF/25V	CE04W1E100MB(SSL)
C216	255 4212 009	Mylar film 0.22μF/50V	CQ92M1H224KB	C271	254 4256 004	Electrolytic 10μF/25V	CE04W1E100MB(SSL)
C217	254 4256 004	Electrolytic 10μF/25V	CE04W1E100MB(SSL)	C272		Ceramic 470pF/50V	CC73MSL1H471J
C218	254 4256 004	Electrolytic 10μF/25V	CE04W1E100MB(SSL)	C273	254 4256 004	Electrolytic 10μF/25V	CE04W1E100MB(SSL)
C219	254 4256 046	Electrolytic 100μF/25V	CE04W1E101MB	C277	245 4256 004	Electrolytic 10μF/25V	CE04W1E100MB(SSL)
C220	255 1251 982	Mylar film 5600pF/50V	CQ92M1H562JB	C279	245 4256 004	Electrolytic 10μF/25V	CE04W1E100MB(SSL)
C221	254 4250 055	Electrolytic 470μF/6.3V	CE04W0J471MB	C283	245 4256 004	Electrolytic 10μF/25V	CE04W1E100MB(SSL)
C222	255 4212 054	Mylar film 0.047μF/50V	CQ92M1H473JB	C284		Ceramic 0.022μF/50V	CK73MF1H223Z
C223		Ceramic 470pF/50V	CC73MSL1H471J	C285	254 4256 004	Electrolytic 10μF/25V	CE04W1E100MB(SSL)
C224		Ceramic 2200pF/50V	CK73MB1H222K	C286		Ceramic 0.022μF/50V	CK73MF1H223Z
C225	254 4260 045	Electrolytic 1μF/50V	CE04W1H1R0MB(SSL)	C287	254 4196 944	Electrolytic 1μF/50V	CE04W1H1R0MB(SSL)
C226	256 1035 075	Mylar film 0.068μF/50V	CQ92M1H068JB	C288		Ceramic 0.01μF/50V	CK73MF1H103Z
C227	255 4212 009	Mylar film 0.22μF/50V	CQ92M1H224KB	C289		Ceramic 0.1μF/25V	CK73MF1E104Z
C228	255 4212 009	Mylar film 0.22μF/50V	CQ92M1H224KB	C290		Ceramic 0.01μF/50V	CK73MF1H103Z
C229	255 4212 009	Mylar film 0.22μF/50V	CQ92M1H224KB	C295		Ceramic 220pF/50V	CC73MSL1H221J
C230	254 4260 074	Electrolytic 4.7μF/50V	CE04W1H477MB(SSL)	C297	254 4260 087	Electrolytic 10μF/25V	CE04W1E100MB(SSL)
C231	254 4260 074	Electrolytic 4.7μF/50V	CE04W1H477MB(SSL)	C298	254 4260 087	Electrolytic 10μF/50V	CE04W1H100MB(SSL)
C232	255 4212 009	Mylar film 0.22μF/50V	CQ92M1H224KB				
C233	255 4224 945	Mylar film 0.1μF/50V	CQ92M1H104KB	C554	254 4260 045	Electrolytic 1μF/50V	CE04W1H1R0MB(SSL)
C234	255 4224 945	Mylar film 0.1μF/50V	CQ92M1H104KB	C555	254 4256 088	Electrolytic 1000μF/25V	CE04W1E102MF
C235	255 4224 945	Mylar film 0.1μF/50V	CQ92M1H104KB	C556	253 1181 904	Ceramic 0.01μF/50V	CK451H1032B
C236	255 4224 945	Mylar film 0.1μF/50V	CQ92M1H104KB	C557	253 1181 904	Ceramic 0.01μF/50V	CK451H1032B
C237	255 4223 962	Mylar film 0.022μF/50V	CQ92M1H223JB	C559	253 8001 100	Ceramic 250pF	CC-472M251F-D
C238	255 4223 962	Mylar film 0.022μF/50V	CQ92M1H223JB				
C239	254 4260 045	Electrolytic 1μF/50V	CE04W1H1R0MB(SSL)	C703	254 4260 074	Electrolytic 4.7μF/50V	CE04W1H477MB(SSL)
C240	254 4260 045	Electrolytic 1μF/50V	CE04W1H1R0MB(SSL)	C705	254 4250 929	Electrolytic 100μF/6.3V	CE04W0J101MB
C241	254 4260 045	Electrolytic 1μF/50V	CE04W1H1R0MB(SSL)	C706		Ceramic 0.01μF/16V	CCT103M16D3
C242		Ceramic 0.1μF/25V	CK73MF1E104Z	C707	254 4256 046	Electrolytic 10μF/25V	CE04W1E100MB(SSL)
C243	254 4260 045	Electrolytic 1μF/50V	CE04W1H1R0MB(SSL)				
C244	025 4426 045	Electrolytic 1μF/50V	CE04W1H1R0MB(SSL)				
C245		Ceramic 470pF/50V	CC73MSL1H471J				
C246		Ceramic 3300pF/50V	CK73MB1H332K				
C247		Ceramic 0.1μF/25V	CK73MF1E104Z				
C248		Ceramic 0.1μF/25V	CK73MF1E104Z				
C249		Ceramic 0.1μF/25V	CK73MF1E104Z				
C250	254 4256 033	Electrolytic 47μF/25V	CE04W1E470MB(SSL)				
C251		Ceramic 0.1μF/25V	CK73MF1E104Z				
C252		Ceramic 470pF/50V	CC73MSL1H471J				



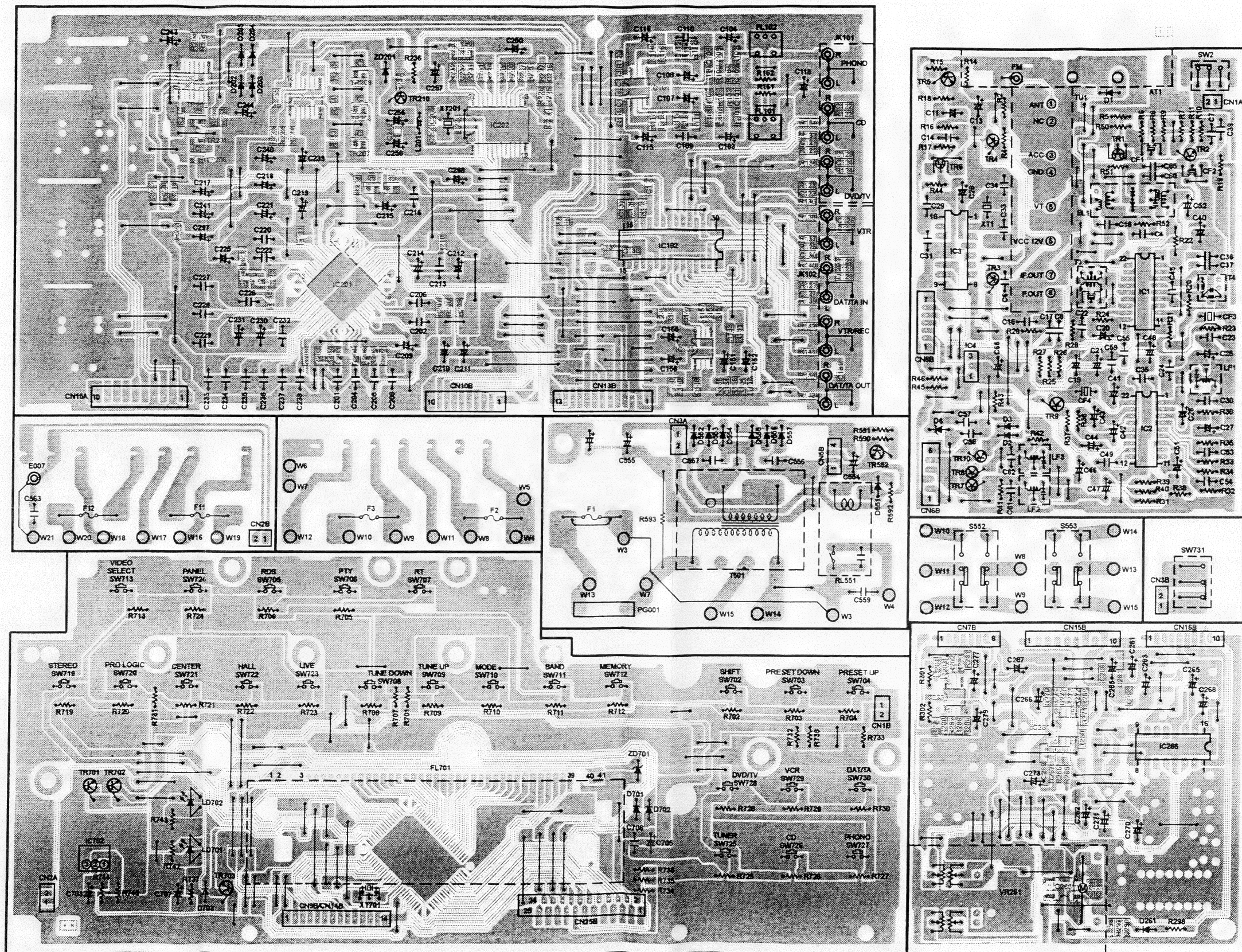
PRINTED WIRING BOARD

MAIN P.W.B. Ass'y UNIT



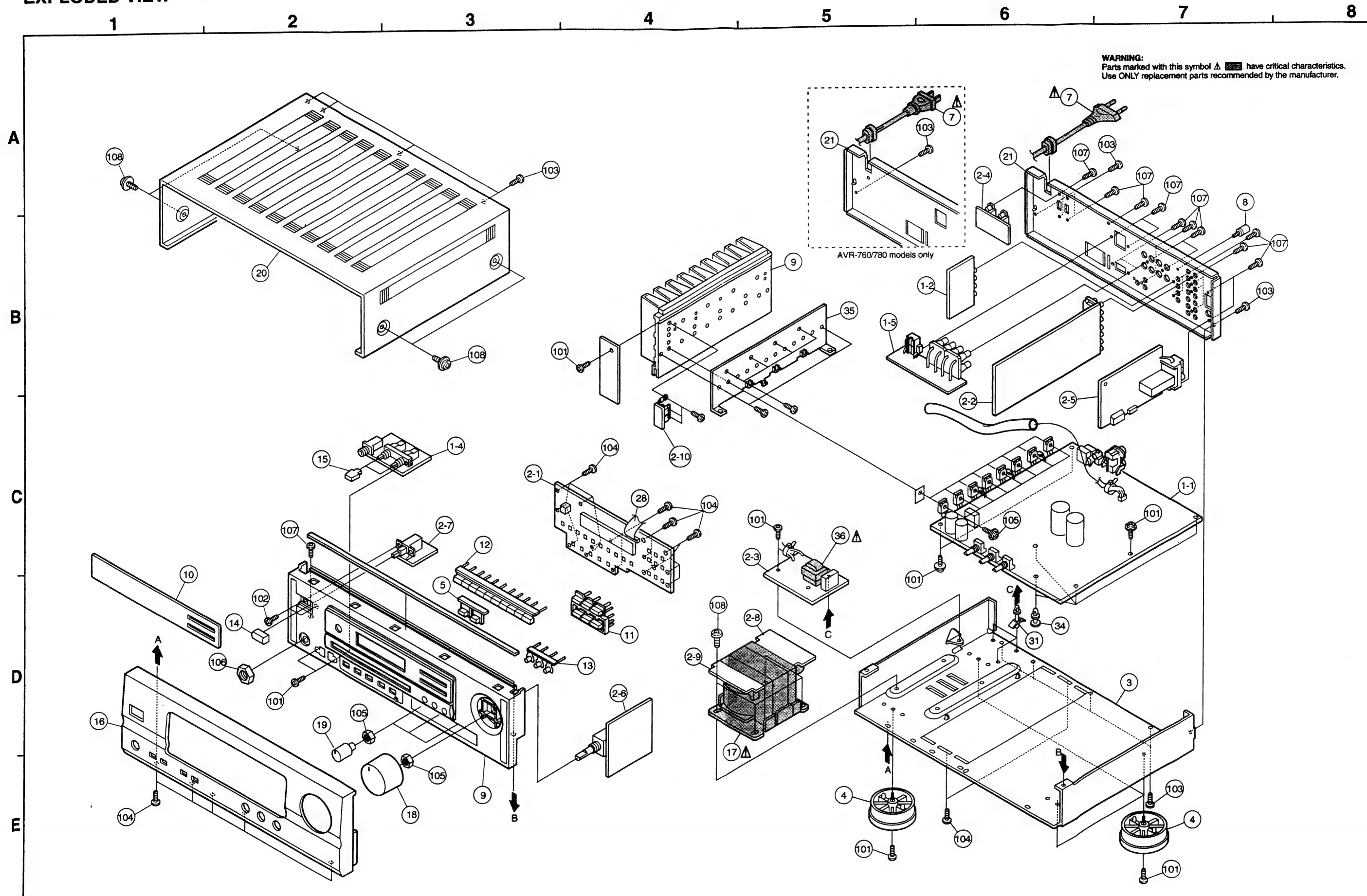


FL P.W.B. Ass'y UNIT





# EXPLODED VIEW

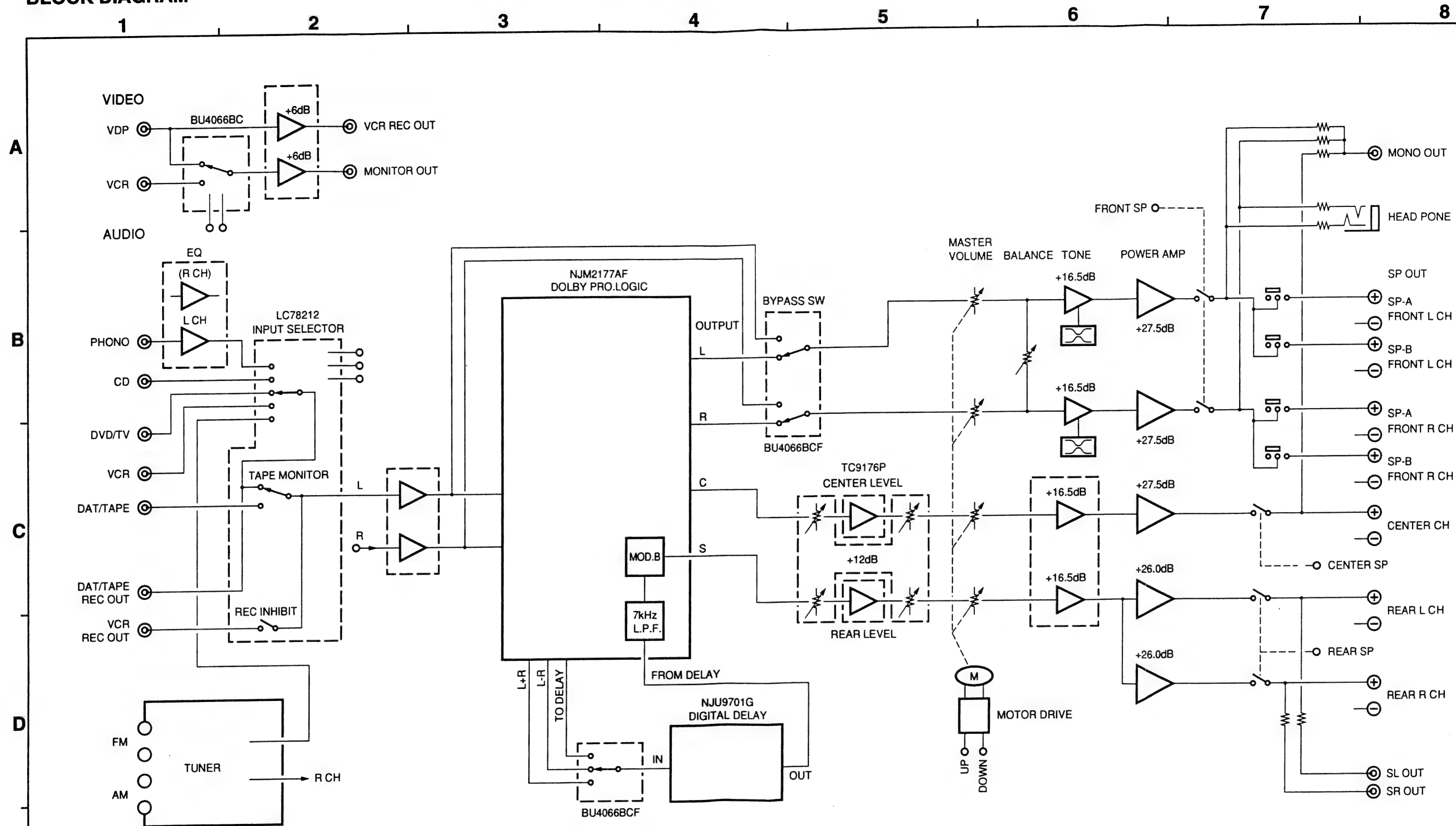




## ADDENDUM PARTS LIST

35

## BLOCK DIAGRAM





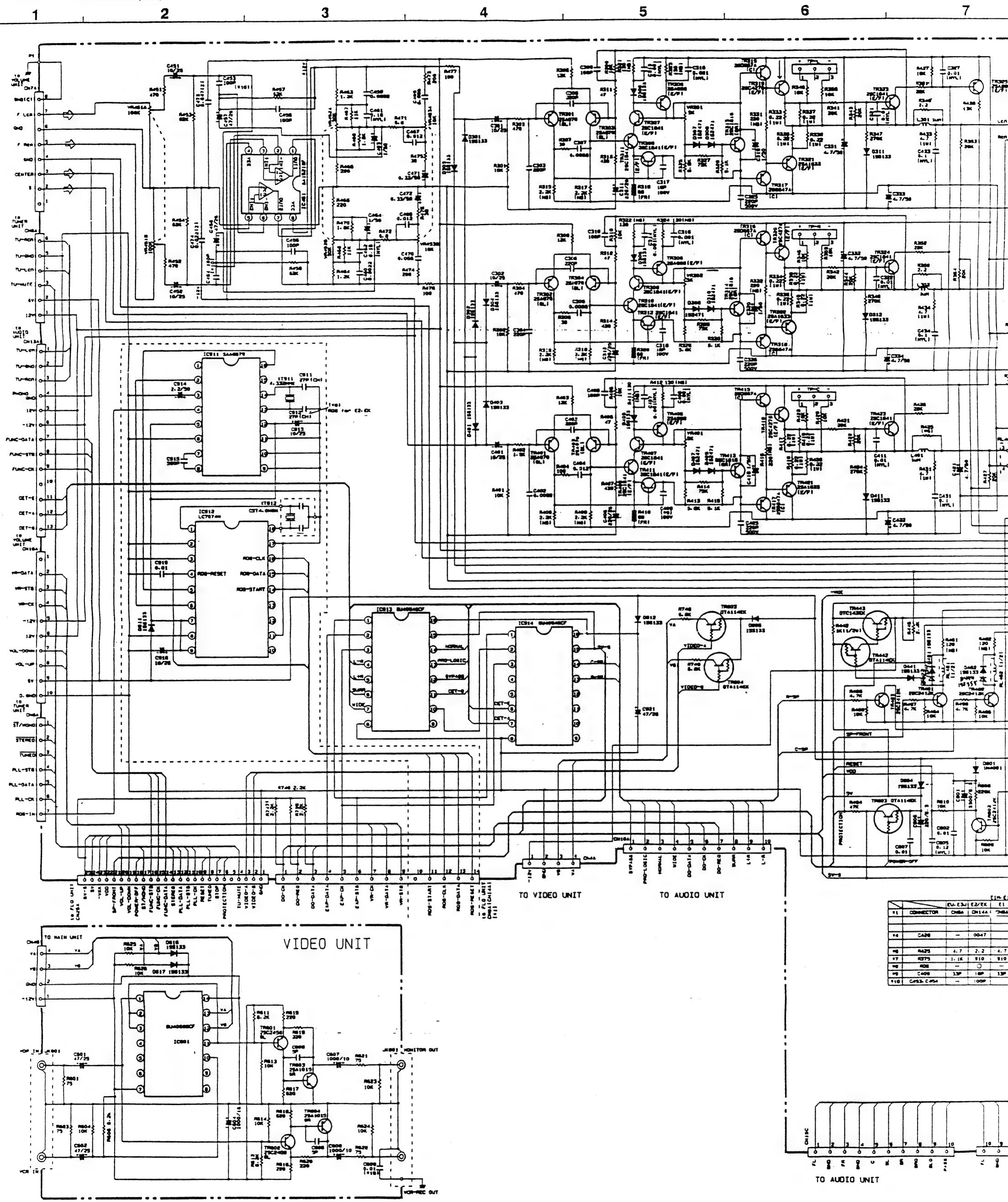






# DECK

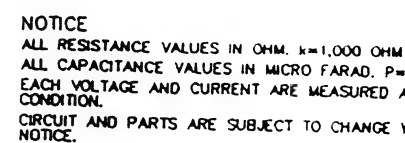
KEY No.	Function	Classification	System address					Data code					Extension		Mask	Judge	
			C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	K
1	POWER ON/OFF	AV. AMP	0	1	0	0	0	1	0	0	0	0	0	1	1	0	0
2	PLAY ◀	DECK	0	0	1	0	0	1	1	1	0	1	0	1	0	0	0
3	STOP ■	DECK	0	0	1	0	0	0	1	1	1	1	0	1	0	0	0
4	PLAY ▶	DECK	0	0	1	0	0	0	0	1	1	1	0	1	0	0	0
5	REW ◀◀	DECK	0	0	1	0	0	1	1	0	1	1	0	1	0	0	0
6	A/B	DECK	0	0	1	0	0	1	1	0	0	1	0	1	0	0	0
7	FF ▶▶	DECK	0	0	1	0	0	0	1	0	1	1	0	1	0	0	0
8	PRESET CH. DOWN	TUNER	0	0	1	1	0	1	0	1	0	1	0	1	1	0	0
9	PRESET CH. UP	TUNER	0	0	1	1	0	0	1	1	0	1	0	1	1	0	0
10	CD	AV. AMP	0	1	0	0	0	0	0	1	0	0	0	1	1	0	0
11	PHOTO	AV. AMP	0	1	0	0	0	1	1	0	0	0	0	1	1	0	0
12	SHIFT	TUNER	0	0	1	1	0	1	0	1	1	0	0	1	1	0	0
13	TUNER	AV. AMP	0	1	0	0	0	1	0	1	0	0	0	1	1	0	0
14	VCR	AV. AMP	0	1	0	0	0	1	0	1	1	0	0	1	1	0	0
15	VDP/DBS	AV. AMP	0	1	0	0	0	0	1	0	1	0	0	1	1	0	0
16	STEREO	AV. AMP	0	1	0	0	0	1	1	1	0	0	1	1	1	0	0
17	SURR. MODE	AV. AMP	0	1	0	0	0	0	1	1	0	0	1	1	1	0	0
18	V. AUX/GAME	AV. AMP	0	1	0	0	0	0	0	1	1	0	0	1	1	0	0
19	DAT/TAPE MONITOR	AV. AMP	0	1	0	0	0	0	1	0	0	1	0	1	1	0	0
20	T. TONE	AV. AMP	0	1	0	0	0	0	1	0	1	0	1	1	1	0	0
21	DELAY+	AV. AMP	0	1	0	0	0	1	0	0	1	0	1	1	1	0	0
22	MUTING	AV. AMP	0	1	0	0	0	0	0	0	0	1	1	1	1	0	0
23	SCREEN	AV. AMP	0	1	0	0	0	1	1	1	1	1	0	1	1	0	0
24	PANEL	AV. AMP	0	1	0	0	0	0	1	1	1	1	0	1	1	0	0
25	CENTER VOLUME UP	AV. AMP	0	1	0	0	0	1	0	1	0	1	1	1	1	0	0
26	CENTER VOLUME DOWN	AV. AMP	0	1	0	0	0	0	1	1	0	1	1	1	1	0	0
27	REAR VOLUME UP	AV. AMP	0	1	0	0	0	1	1	0	0	1	1	1	1	0	0
28	REAR VOLUME DOWN	AV. AMP	0	1	0	0	0	0	0	1	0	1	1	1	1	0	0
29	MASTER VOLUME UP	AV. AMP	0	1	0	0	0	1	0	0	0	1	1	1	1	0	0
30	MASTER VOLUME DOWN	AV. AMP	0	1	0	0	0	0	1	0	0	1	1	1	1	0	0





	E3	E2	E1	J
#11				
#12 C361-C364	—	○	—	—
#14 C513-C514	—	○	—	—
#18 C606	—	○	—	—
#16 C623	—	○	—	—
#17 K373	1-1K	#10	#10	

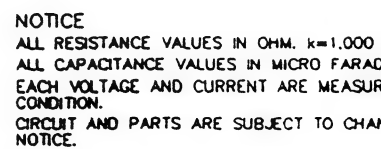
**WARNING:**  
DO NOT return the unit to the customer until the problem is located and corrected.

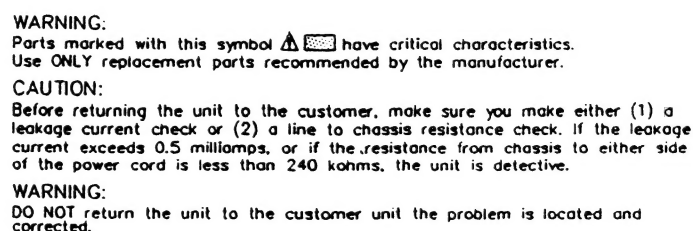




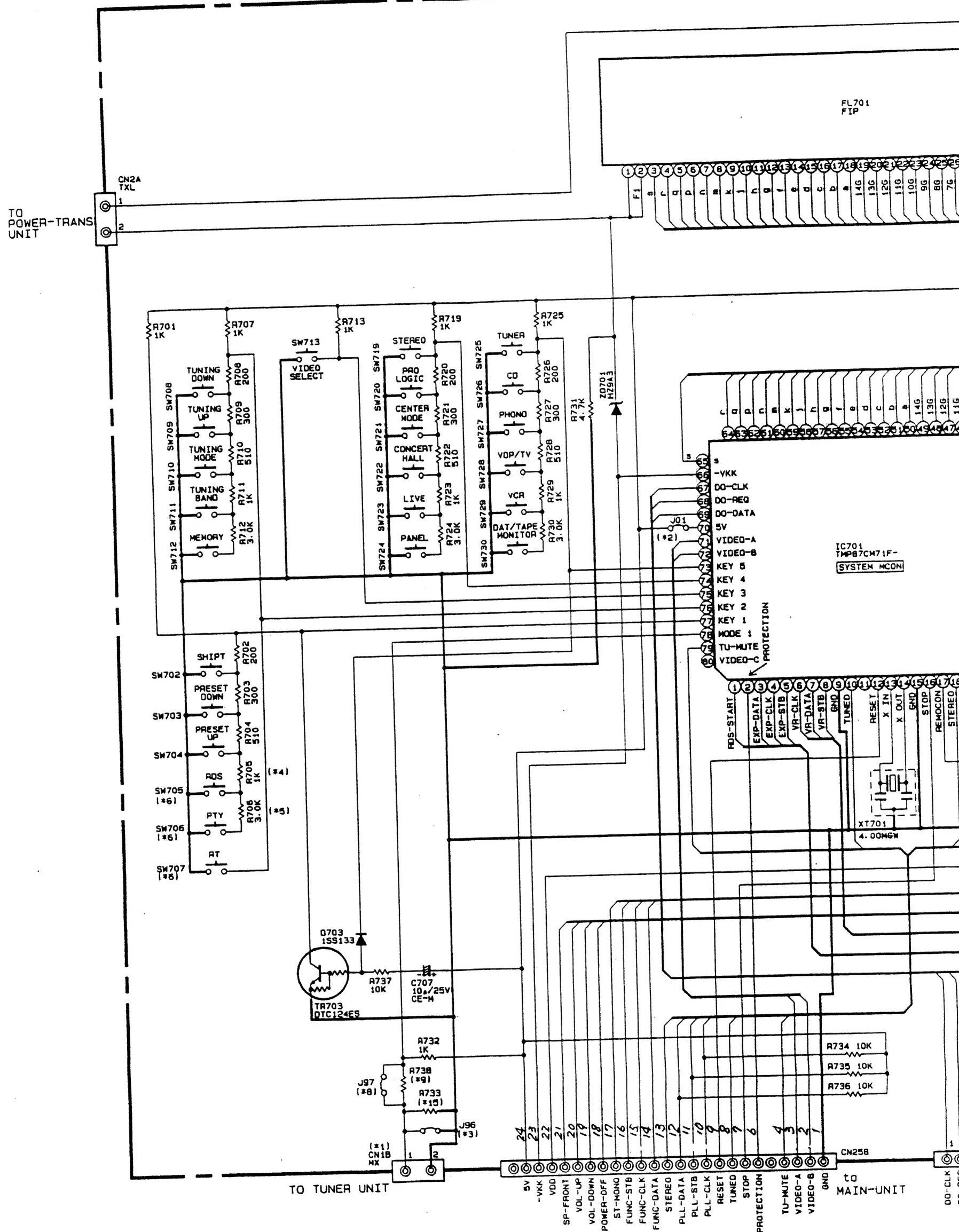






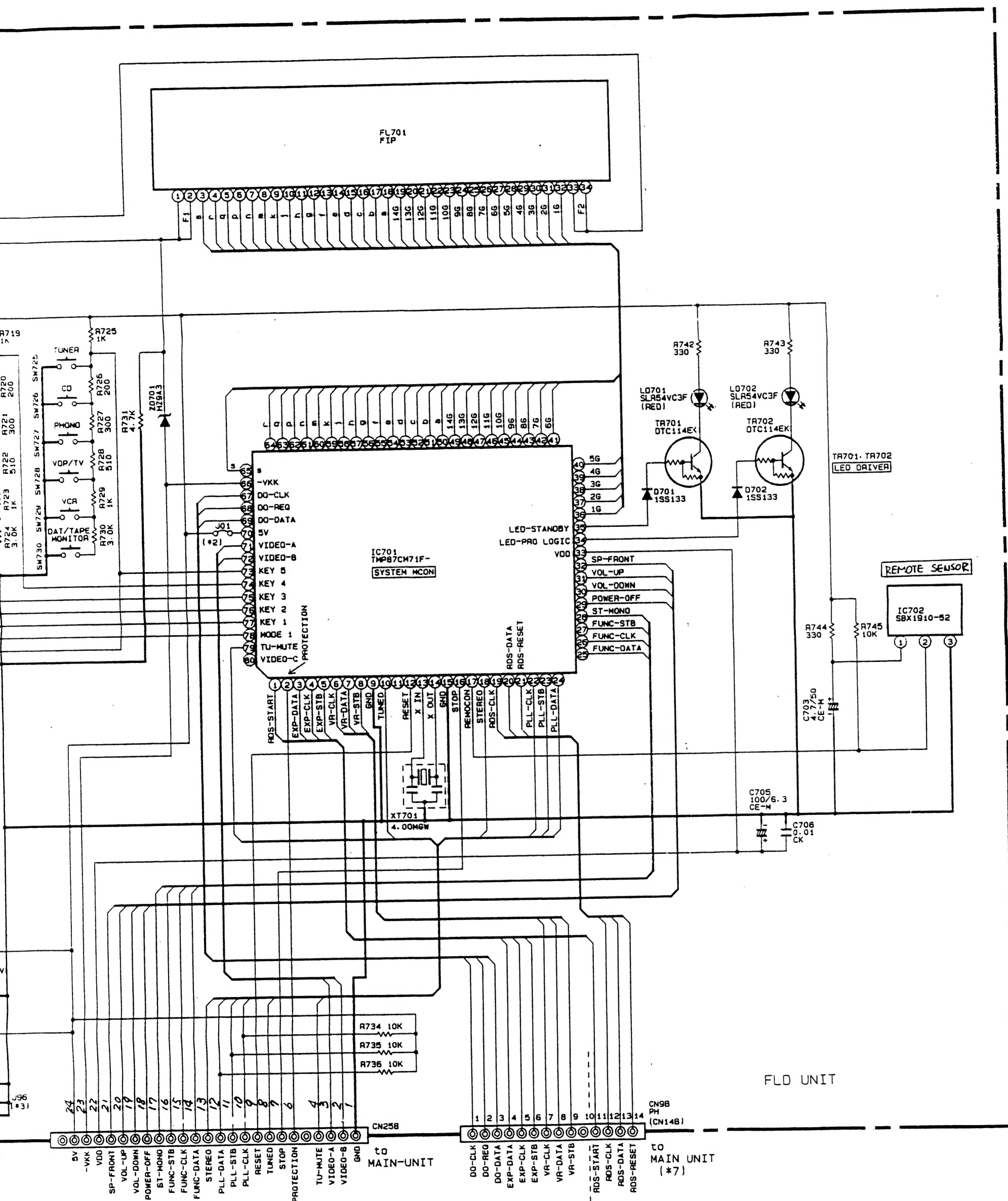


# SCHEMATIC DIAGRAM (4/5)



	(#1) CN1B	(#2) ROS-J01	(#3) J96	(#4) R705	(#5) R706	(#6) SW705	(#7) CN9B	(#15) R733	(#16) IC701	(#8) J97	(#9) R738
EU	---	---	---	---	---	---	---	---	---	JUM	---
E1	---	---	---	---	---	---	---	---	---	---	2K
E2/EK	---	JUM	---	1K	3K	---	CN14B	4.7K	---	JUM	---
J	---	---	---	---	---	---	---	---	---	---	---
E1-C	---	---	---	---	---	---	---	---	---	---	2K

NOTICE  
ALL RESISTANCE VALUES IN  
ALL CAPACITANCE VALUES IN  
EACH VOLTAGE AND CURRENT  
CONDITION.  
CIRCUIT AND PARTS ARE SUB  
NOTICE.



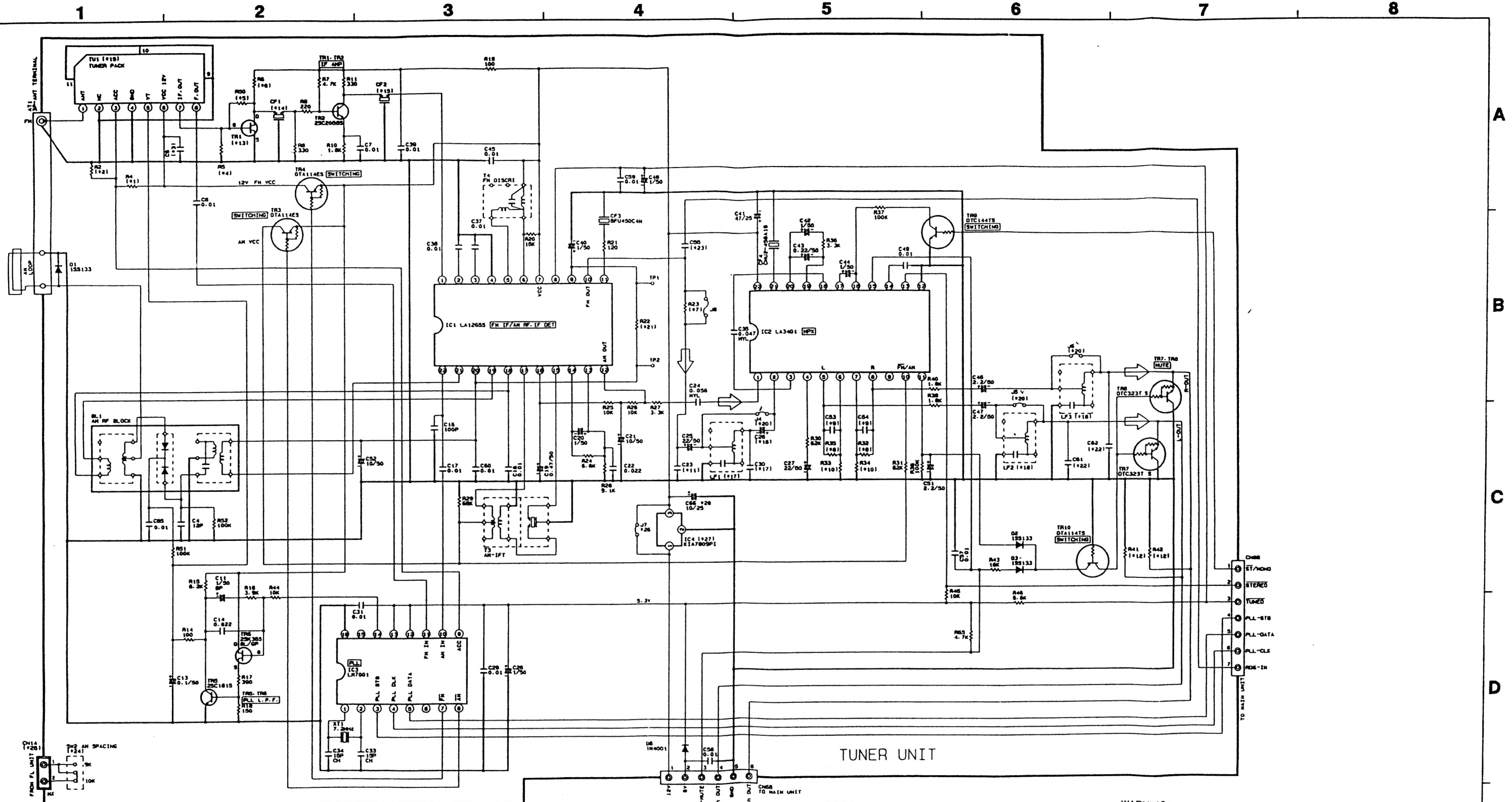
NOTICE  
ALL RESISTANCE VALUES IN OHM.  $k=1,000$  OHM  $M=1,000,000$  OHM  
ALL CAPACITANCE VALUES IN MICRO FARAD.  $P=$ MICRO-MICRO FARAD  
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT  
CONDITION.  
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR  
NOTICE.

**WARNING:**  
Parts marked with this symbol  have critical characteristics.  
Use **ONLY** replacement parts recommended by the manufacturer.


**CAUTION:**  
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 240 kohms, the unit is defective.

**WARNING:**  
DO NOT return the unit to the customer until the problem is located and corrected.

# SCHEMATIC DIAGRAM (5/5)



**NOTICE**  
ALL RESISTANCE VALUES IN OHM. K=1,000 OHM M=1,000,000 OHM  
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD  
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT  
CONDITION.  
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR  
NOTICE.

**WARNING:**  
Parts marked with this symbol  have critical characteristics.  
Use ONLY replacement parts recommended by the manufacturer.  
**CAUTION:**  
Before returning the unit to the customer, make sure you make either (1) a  
leakage current check or (2) a line to chassis resistance check. If the leakage  
current exceeds 0.5 milliamps, or if the resistance from chassis to either side  
of the power cord is less than 240 kohms, the unit is defective.  
**WARNING:**  
DO NOT return the unit to the customer unit the problem is located and  
corrected.

	*1	*2	*3	*4	*5	*6	*7	*8	*9	*10	*11	*12	*13	*14	*15	*16	*17	*18	*19	*20	*21	*22	*23	*24	*25	*26	*27	*28
	R1	R2	C6	R3	R50	R6	R23	R32-R35	C53-C54	R33-R34	C23	R41-R42	TR1	CF1	CF2	C26	LF1-C301560P1	LF2-LF3	TU1	J4-S-6	R22	C61-C62	C56	SW2	CH1A	J7	IC4	C66
E2/EK	10K	5.6K	0.01	390	—	330	1.2K	150K	330P	180K	—	4.7K	25K181	SFE10.7 HS2-A	SFE10.7 HS2-A	22/50	—	—	4-TUNE	—	39K	0.0047	120P	—	—	—	—	—
E3/EU	—	—	—	1K	100	—	JUMPER	100K	680P	120K	100P	6.8K	—	SFE10.7 HA-B	SFE10.7 HS20-A	—	—	—	3-TUNE	JUMPER	18K	—	—	—	—	—	—	—
E1-E1-1 E1	—	—	—	1K	100	—	JUMPER	100K	680P	120K	100P	6.8K	—	SFE10.7 HA-B	SFE10.7 HS20-A	—	—	—	3-TUNE	JUMPER	39K	—	—	—	—	—	—	—
E1-C	—	—	—	1K	100	—	JUMPER	100K	680P	120K	100P	6.8K	—	SFE10.7 HA-B	SFE10.7 HS20-A	—	—	—	3-TUNE	JUMPER	39K	—	—	—	—	—	—	—
J	—	—	—	1K	100	—	JUMPER	150K	330P	180K	100P	6.8K	—	SFE10.7 HA-B	SFE10.7 HS20-A	—	—	—	3-TUNE	JUMPER	18K	—	—	—	—	—	—	—